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ABSTRACT

For use in conjunction with training videotapes illustrating key concepts and caregiving techniques, this guide aims to help caregivers set up environments for infants and toddlers that promote young children's health, safety, and comfort, meet their developmental needs, and provide caregivers a comfortable and convenient place to work. Section 1 identifies and describes eight key concepts that need to be considered when designing any child care environment: safety, health, comfort, convenience, child size, flexibility, movement, and choice. In addition to defining each concept, the section suggests practical steps that caregivers can take to improve certain features of the environment. Section 2 considers those aspects of the environment that make each setting unique and suggests how to work with that uniqueness in environmental planning. The section provides a framework for looking at particular caregiving environments. Rich in illustrations and devoted to practical concerns, Section 3 explores specific areas in the child care environment, including the entrance and parent communication area, learning and development centers, peer play areas, multilevel areas, rest and sleeping areas, toileting, washing up, feeding, and food preparation areas, storage and shelves, and outdoor space. The guide closes with practical tips, suggested resources, and a glossary of environmental terms. (RH)

The Program for infant toddler caregivers

Infant/Toddler Caregiving

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A Guide to Setting Up Environments

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Bill Honig, State Superintendent of Public Instruction, Sacramento, 1990

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Infant/Toddler Caregiving

A Guide to

Setting Up Environments

J. Ronald Lally
and
Jay Stewart

Developed by the
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Far West Laboratory
for Educational Research and Development

for the
Child Development Division
California Department of Education

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Preface

At a time when half the mothers in this country are gainfully employed, most of them full time, more young children require care outside the home than ever before. The growth of child care services has failed to keep pace with the rapidly increasing demand, making appropriate care for young children difficult for families to find. Training is needed to increase the number of quality child care programs, yet the traditional systems for training child care providers are overburdened. In response to the crisis, the California State Department of Education's Child Development Division has developed an innovative and comprehensive approach to training infant and toddler caregivers called The Program for Infant/Toddler Caregivers. The program is a comprehensive training system consisting of a document entitled *Visions for Infant/Toddler Care: Guidelines for Professional Caregiving*, an annotated guide to media training materials for caregivers, a series of training videotapes, and a series of caregiver guides.

The purpose of the caregiver guides is to offer information based on current theory, research, and practice to caregivers in both centers and family child care homes. Each guide addresses an area of infant development and care, covering major issues of concern and related practical considerations. The guides are intended to be used hand in hand with the program's series of videos; the videos illustrate key concepts and caregiving techniques for a specific area of care, and the guides provide extensive and in-depth coverage of a topic.

This guide was written by J. Ronald Lally and Jay Stewart. Like the other guides in the series, this one is rich in practical guidelines and suggestions. The information and ideas presented in this document are intended to help caregivers set up environments for infants and toddlers that promote young children's health, safety, and comfort, meet their developmental needs, and provide a comfortable and convenient place to work for the caregiver.

ROBERT W. AGEE
Deputy Superintendent
Field Services Branch

ROBERT A. CERVANTES
Director
Child Development Division

JANET POOLE
Assistant Director
Child Development Division

About the Authors

J. Ronald Lally is the Director of the Center for Child and Family Studies at the Far West Laboratory for Educational Research and Development in San Francisco. He also administers the Bay Area Early Intervention Program.

Previously, Dr. Lally chaired the Department of Child and Family Studies at Syracuse University, where he was a full professor. While at Syracuse University, he directed the Children's Center and Family Development Research Program, which provided continuous support services for six years to 100 low-income children and their families. Dr. Lally and his associates conducted a 15-year longitudinal follow-up study of that program.

Dr. Lally is on the Executive Committee of the Board of Directors of the National Center for Clinical Infant Programs and is on the national advisory committees for the Family Resource Coalition, the Ounce of Prevention Fund, and the Beryl Buck Institute for Education. He is an adviser to the Scientist's Institute for Public Information and to television and print media on child and family issues.

Dr. Lally has authored several books on child development. His most recent publication, coauthored with Peter L. Mangione and Alice Honig, is "The Syracuse University Family Development Research Program: Long-Range Impact of an Early Intervention with Low-income Children and Their Families" in *Parent Education as Early Childhood Intervention: Emerging Directions in Theory, Research and Practice*. He also edited and contributed to *Infant/Toddler Caregiving: A Guide to Social-Emotional Growth and Socialization*, a document of The Program for Infant/Toddler Caregivers.

Jay Stewart is an editor and free-lance writer. Much of her work has been in the fields of psychology and education. She has also contributed articles on mediation to the *San Francisco Business Times*.

Ms. Stewart has collaborated on books dealing with a variety of subjects, including cancer prevention and the needs of disabled children. She is currently working on a book on nutrition for cancer patients and editing a book on women's studies.

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Introduction

When you walk into a quiet hospital room, you start whispering. But when you enter a crowded gymnasium to watch a basketball game, you have to yell at the person next to you to make room for you to sit. Your personality has not changed, but the environment has. How you feel, what you do, and how you respond all depend on where you are:

- In some settings you feel relaxed, comfortable, and free to open up and be yourself.
- In other places you feel formal, stiff, and a little on guard.

The environments in which people live and work convey messages about what is okay and what is not, what is expected or allowed, and what is encouraged.

Surroundings have a powerful effect on adults. The same is true for infants and toddlers—and the effect on children might be even more powerful. Babies who cannot crawl or walk are prisoners of the environments in which they are placed. Young infants cannot move to another room or rearrange the setting. They are stuck with seeing, touching, smelling, feeling, and hearing whatever is around them at the moment or tuning the environment out.

Infants and toddlers learn about and experience life through sense and motor explorations. They touch, taste, smell, observe, and move the world about them to make sense out of it. Children from birth to three years of age live directly through their senses. Adults, for example,

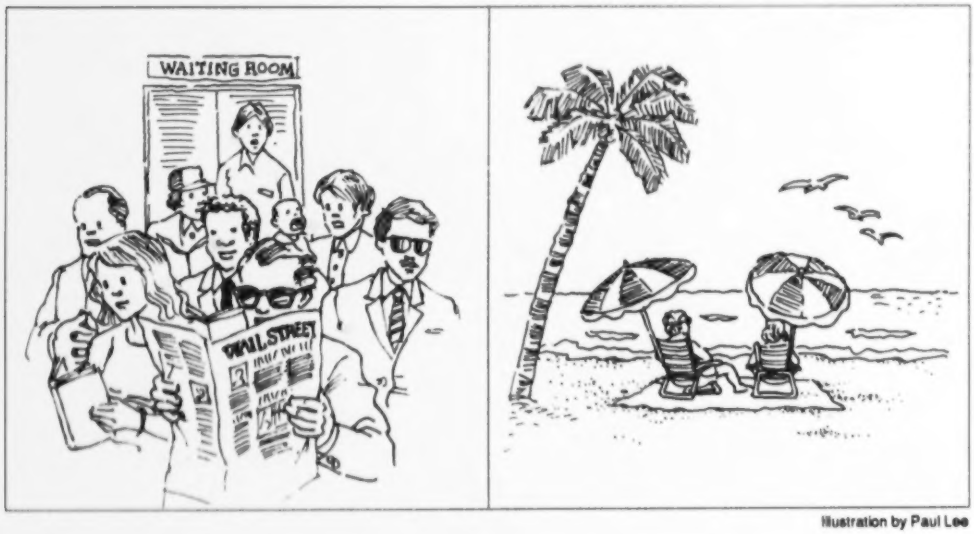
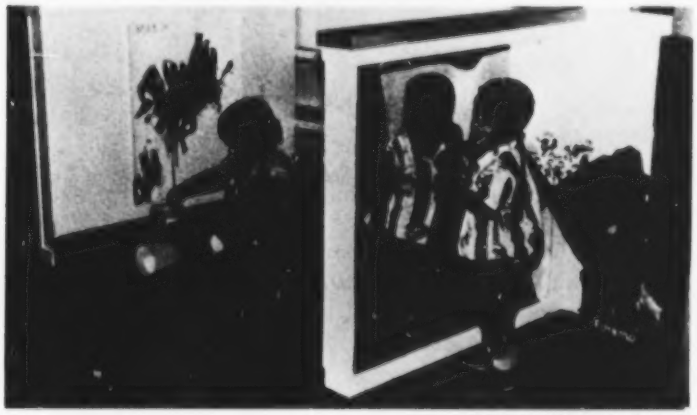


Illustration by Paul Lee

have an image of how a chair should look and compare new chairs with that image. Infants form their images from their first contacts with their environment. Because of this effect, where the infants are placed has a tremendous impact. What they see, hear, taste, and touch create strong impressions. Who and how many people infants are with influence how they feel about relationships.



Design and photo by Louie Torelli

A child care environment is not neutral. It is one of the child's most valuable teachers. The space a child feels and moves in minute by minute and day after day is what introduces the child to the colors, shapes, smells, and sounds of the world. Infants and toddlers grow and learn by interacting with their environment, including people, and watching what happens.

As they explore, infants discover the effects of certain actions, such as:

- Fall on the linoleum floor—hard feeling
- Push a ball—movement
- Push a big rock—no movement
- Push a toddler—get pushed back

Understanding and growth follow those discoveries; for example, pillows are soft and fun to fall on, but falling on the hard floor hurts.

Infants and toddlers build concepts based on their sense and motor explorations. For example, they learn the difference between wet and dry, soft and hard, rough and smooth, cold and hot, movable and stationary.

The floors, ceiling, lighting, walls, and furniture all contribute to the infants' and toddlers' education about the world. By interacting with their surroundings, infants and toddlers see their own abilities reflected in what they can do. Today the young toddler can take more steps; next the toddler can go from the couch to the chair. The child is not only mastering a new skill but also learning more about who he or she is and what he or she can do.

The environment also has power over you, the caregiver. A totally child-centered environment should not be your goal. An excellent setting for infant/toddler care accommodates the needs of the caregivers as well as those of the infants and toddlers. In contrast you may have the following problems with the environment:

- If the environment makes you anxious about the children's safety, you cannot relax and play with the children.
- If the room arrangement does not allow you to find things easily, you get frustrated and waste precious time.
- If you do not have a place to relax away from the children for a few moments, you may suffer burnout.

You need a place that is comfortable for you and that supports your work. The caregiving environment must meet your needs *and* the children's, so both you and the children can relax and enjoy one another. In an interview for *Beginnings* (summer, 1984), Jim Greenman, an infant environment expert, stated:

> Infant and toddler rooms should spark the response: *What a neat place to be a little kid! What a neat place to be WITH a little kid!*

How you make an infant care environment a "neat place to be" takes planning. Infants need to be cared for in places that are safe *and* interesting. The places should engage the infants' large and small muscles, captivate their senses, and activate their curiosity. The environment should also make the young child feel secure and free from danger. This document will help you promote those environmental characteristics. Each of the sections looks at environments from a different point of view and provides suggestions from that perspective.

Section One of the guide identifies and describes eight key concepts that need to be considered when designing any child care environment. These concepts allow you to look at the same piece of equipment or room arrangement plan from eight different viewpoints to make sure that the infants' best interests are considered. In addition to defining each concept, the section suggests practical steps that you, the caregiver, can take to improve certain features of the environment. Taken together, the eight concepts will help you focus on the whole environment and its overall impact on both adults and children.

Section Two considers those aspects of the environment that make each setting unique and suggests how to work with that uniqueness in environmental planning. The section provides a framework for looking at your own particular environment. Characteristics of environmental use that clarify the purpose, constraints, possibilities, and potential impact of an environment on infants, toddlers, and caregivers are discussed. Some of the characteristics are more obvious than others. For example, the age of the children in the child care program will make a difference. A related concern is the age composition of the group, whether children are grouped together by age, separate from other age groups, or mixed with other children of varying ages. Another obvious factor is whether the program is home based or center based. Among the more subtle influences of a setting is the location of pathways for movement. The potential location of open space in the environment and access to outdoor areas are additional considerations. Each setting and program is going to differ from the next in various ways. Section Two will help you carry out the special planning necessary to make the most of the environment for yourself and for the infants and toddlers in your care.

Section Three of this guide explores specific areas in the child care environment. For example, if you want ideas about how to set up the food preparation area, you can skip ahead to that topic in the section. There you will find detailed information on how to set up the area as well as information related to the area's impact on the eight key concepts described in Section One. In general, Section Three is rich in illustrations. Many of the ideas depicted in the illustrations are reinforced in the text and vice versa. Much of the detail in the third section is devoted to practical concerns; for example, what kinds of materials to

Photo by Sheila Signer

use in building a small play structure or in creating a texture walk.

The guide closes with practical tips, suggested resources, and a glossary of environmental terms. Some of the tips are general and others are quite specific. Some refer to the whole environment, and others refer to a specific area. Many of the ideas presented are mentioned in other parts of the text. The practical tips provide additional detail. The list of suggested resources is included for people who would like additional information on various environmental topics. Because much of the terminology on the topic of environments is technical, the glossary is provided. It will help you find a definition of a term quickly.

The glossary also can be used as a learning tool. The definitions are extensive and often explain concepts and ideas with examples. For the reader who wants to become familiar with the terminology related to environments, to get the lay of the land so to speak, and who wants to pick up some interesting ideas along the way, the glossary is a good place to start reading this document.

Safety

The caregiver provides a safe environment to prevent and reduce injuries.

One of the most fundamental services for young children is to ensure the children's safety and well-being. The skills, knowledge, and attentiveness that caregivers need to prevent injuries and handle accidents appropriately cover a broad range of concerns. For example, indoor and outdoor areas need to be free of dangerous conditions and hazardous materials, such as tools, chipped paint, uncushioned surfaces under climbing equipment, exposed electrical outlets, medicines, matches, or unguarded stairways. Caregivers should know basic first-aid procedures, including how to assist a child who is choking; and they should maintain adequate first-aid supplies, a current list of emergency service phone numbers, and safety equipment, such as fire extinguishers and smoke detectors. Finally, the caregiver should know how to respond immediately and sympathetically to a child's injury and how to teach children about safety. In a safe environment children will learn gradually to protect themselves and to look out for others.

Young infants, because of their vulnerability and relative helplessness, must be attended to carefully to ensure their safety and security. The caregiver must pay close attention to a host of details—from making sure the crib rail is locked in its *up* position during a nap, for example, to keeping baby powder, ointments, and creams out of reach while diapering.

Mobile infants are changing each day. As their rapidly increasing motor skills lead them into new areas, adults must anticipate new hazards, being alert to the fact that they can move faster, climb higher, and reach things they could not reach only a few days before.

Toddlers are especially challenging. At the height of their exploratory curiosity, they are not yet fully aware of what activities are dangerous. While letting toddlers stretch boundaries and test their surroundings, adults must oversee that testing with a watchful eye and begin explaining in simple language the cause-effect relationships of safety precautions.

Health

The caregiver promotes good health and nutrition and provides an environment that contributes to the prevention of illness.

Good health involves sound medical and dental practices through which adults model and encourage good health habits with children. Caregivers should be able to recognize common signs of illness or distress and respond promptly. Acute or chronic illness should be referred for treatment as soon as possible so that children can develop and take full advantage of the program. Children need a clean environment that is properly lighted, ventilated, and heated or cooled. Indoor and outdoor areas should be free of materials or conditions that endanger children's health. Care of the child's

physical needs communicates positive feelings about his or her value and enhances the child's developing identity and sense of self-worth. Parents and caregivers should exchange information about the children's physical health frequently.

Providing ***young and mobile infants*** with affectionate and competent physical care includes responding to their individual rhythms while working toward regularity in feeding, sleeping, and toileting. It also includes sanitary procedures for diapering and cleaning toys that infants put in their mouths.

Toddlers imitate and learn from the activities of those around them. Good health habits can be established through modeling and encouraging toothbrushing, hand washing, eating of nutritious foods, and so on.

Learning Environment

The caregiver uses space, relationships, materials, and routines as resources for constructing an interesting, secure, and enjoyable environment that encourages play, exploration, and learning.

Children of all ages learn through their own experiences, trial and error, repetition, and imitation. Adults can guide and encourage children's learning by ensuring that the environment is emotionally appropriate; invites play, active exploration, and movement by children; and supports a broad array of experiences. A reliable framework of routines, together with a stimulating choice of activities and materials, facilitates children's learning. Thoughtful caregivers recognize that the learning environment includes both people and relationships between people and that attention to the way in which environments are set up and used is an important contribution to the quality of a learning experience.

Young infants begin to learn from their immediate surroundings and daily experiences. The sense of well-being and emotional security conveyed by a loving and skilled caregiver creates a readiness for other experiences. Before infants can creep and crawl, caregivers should provide a variety of sensory experiences and encourage movement and playfulness.

Mobile infants are active, independent, and curious. They are increasingly persistent and purposeful in doing things. They need many opportunities to practice new skills and explore the environment within safe boundaries. Adults can share children's delight in themselves, their skills, and discoveries and gradually add variety to the learning environment.

Toddlers are developing new language skills, physical control, and awareness of themselves and others each day. They enjoy participation in planned and group activities, but they are not yet ready to sit still or work in a group for very long. Adults can support the toddlers' learning in all areas by maintaining an environment that is dependable but flexible enough to provide opportunities for them to extend their skills, understanding, and judgment in individual ways.

These visions are excerpts from *Visions for Infant/Toddler Care: Guidelines for Professional Caregiving* (Sacramento: California Department of Education, 1988), which outlines the visions or goals of The Program for Infant/Toddler Caregivers. The Safety and Health statements are excerpts from Vision VI, Safety, Health, and Nutrition, and the Learning Environments statement is an excerpt from Vision VII, Development of Each Child's Competence.

Section One: Creating Environments for Infants and Toddlers – Key Concepts

One of the best ways to make sure that you are meeting the needs of the infants and toddlers you serve is to develop an understanding of the key concepts that should be considered when creating the caregiving environment. The research for this guide and the corresponding video, *Space to Grow: Creating a Child Care Environment for Infants and Toddlers,* led to the discovery of numerous important and useful concepts. Eight were selected as key concepts. These eight important environmental qualities sometimes deal with the same piece of equipment or environmental area, but each concept gives a unique perspective for environmental design. Decisions about the environment should be made after you have analyzed the impact of the environment on all eight of the key concepts, not just one or two. In other words, those eight qualities are the building blocks for environmental planning. The infant/toddler caregiving environment should:

1. Ensure *safety*
2. Promote *health*
3. Provide *comfort*
4. Be *convenient*
5. Be *child-sized*
6. Maximize *flexibility*
7. Encourage *movement*
8. Allow for *choice*

Safety

In a safe setting, infants and toddlers are free to move and explore. They can make their own choices. The caregiver does not worry, police, or referee as much. A safe environment allows you to relax and watch or play with the children. You do not have to say no as often in a safe setting.

Here are some things to do so the children will be safe while they are being active:

- Cover electrical outlets.
- Remove things that break easily.
- Use carpet padding under carpets to cushion falls.

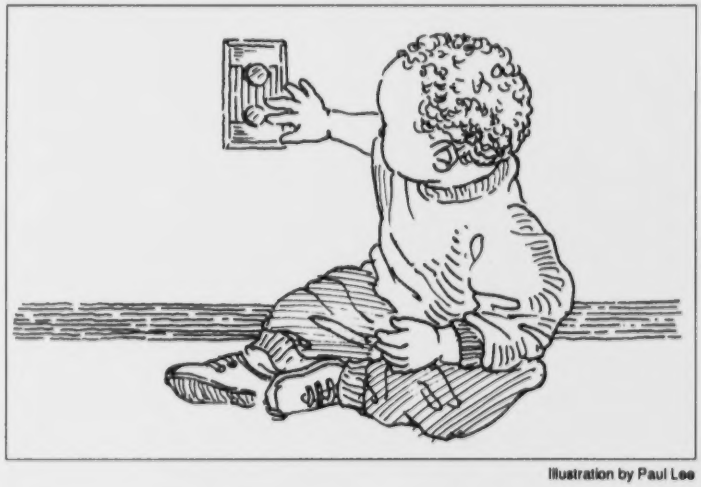


Illustration by Paul Lee

- Use low-pile carpets that are easy to clean and will not hide small objects.
- Use pillows and pads around inside climbing equipment.
- Choose nontoxic materials and furnishings.
- Keep rocking chairs and furniture with sharp corners out of frequently used pathways. Make sure that the floor space where young children often walk or crawl is kept clear.
- Install gates in front of stairwells.
- Fence the outside play area.
- Place sand under outside climbing equipment.
- Check to see that all equipment meets consumer standards.
- Remove any plants that are poisonous, irritating, or dangerous to touch or fall into.
- Make sure the environment has no hidden corners, drop-offs, or sharp edges.

Illustration by Paul Lee

Removal of Hazards

Remove appliances with electric cords that can be pulled off a counter, high shelf, or adult-sized table. Remove other hazards, such as chipped paint, loose pieces of tile, unscreenable heaters, unstable shelves, slippery floors, broken toys, buckets or tubs of water, anything with sharp edges.

After you remove hazards, you can more confidently let infants wander freely. Setting up a safe environment frees you from worry, so you feel more secure. However, toddlers can often find ways to get to hazardous equipment and materials you may think are safely out of reach. Always be aware of potential hazards that can be reached by an infant developing new skills.

Safety Checks

A great way to see if a room is safe for infants and toddlers is to get down and look around from the child's level. Ask yourself:

- Are there places a small hand or head could get caught?
- Are there stairs or ledges too steep for a safe tumble?
- Do any sharp corners or awkward room arrangements cause problems?
- Do crawlers and toddlers have safe, clear pathways with no obstacles?
- Can infants and toddlers exercise all body parts, climb, slide, and run and still be safe?

Health

A healthful setting reduces the chance of contracting or spreading sickness and boosts everyone's physical and emotional well-being. Establishing and maintaining a healthful setting should be your goal.

Heat, Light, and Ventilation

The first step in creating a healthful environment is to check the heat, lighting,

and fresh air supply. Make sure the child care space has enough heat, humidity, light, and ventilation—especially at floor level, where infants and toddlers spend most of their time. Check the lighting carefully. Good lighting affects how people feel and supports health. Everyone needs some exposure to natural light to stay healthy.

Cleanliness

Cleanliness can help prevent sickness and keep it from spreading. The following practices are essential:

- Separate the diapering, food preparation, and feeding areas.
- Have sinks with hot and cold water in both the changing and feeding areas.
- Use easy-to-clean materials when creating the changing and feeding areas.
- Clean the food preparation, feeding, and toileting areas after each use.
- Have a regular schedule for cleaning walls, floors, rugs, bedding, and all toys and equipment. Check for broken toys, equipment, and other hazardous conditions while you clean.
- Set up a regular maintenance schedule for cleaning the furnace and for replacing filters to keep the air fresh.
- Install a humidifier if the air is too dry.
- Check the labels on all pillows, toys, carpets, and mattresses at the time of purchase to make sure they are made from hypoallergenic materials.
- Place washable covers on all pillows and cushions.

Furnishings and Materials

Consider health issues whenever you choose furnishings, equipment, or materials. Ask yourself:

- Can these pillows and mattresses be washed?
- Can pillow covers be removed easily and washed?
- Is this couch easy to clean?

Photo by Sheila Signer

- Can these mats be fitted with washable covers?
- Is this rug made of material that promotes health? Is it washable, nonslip, and hypoallergenic?
- Are any bare light bulbs visible that could cause eyestrain, especially for infants who often gaze upwards?

Overstimulation

Overstimulation can be a health hazard. This problem is often overlooked. Are the walls, floors, and furniture fairly low-key in color, soothing to the eye, and not distracting? Too much movement, too much noise, too many other children, too many adults, or too many things to see at once can upset or scare infants. Avoid (1) large areas of brightly colored, highly figured wallpaper or murals; (2) sharply contrasting colors on walls; (3) too many hanging objects—banners, kites, mobiles, signs—in bright colors; (4) large rooms with many children and caregivers.

Comfort

A comfortable setting helps you and the infants and toddlers relax and enjoy each other and creates harmony and feelings of peacefulness. An infant needs

Illustration by Paul Lee

a place to rest, a place to find a warm shoulder to nestle in, and a low-pile rug to crawl on with ease. A toddler needs a quiet, private space to be alone or to cuddle and hear a story. You as the caregiver need to feel comfortable, too.

The first step in creating comfort is to make sure that everything is safe and promotes health. Just knowing that the setting is safe and healthy will add to your peace of mind.

Walls, Ceilings, and Floors

To establish a comfortable environment, start with the walls, ceilings, and floors. Here are some ways to add comfort to the permanent environment:

- Use neutral, soft, and natural colors on walls, room dividers, and ceilings.
- Have a mixture of natural light and full-spectrum lighting instead of fluorescent lights. Make sure all lights have covers and no lighting is harsh.
- Make sure there is fresh air. Windows that open are best.
- Reduce noise by using acoustic tiles; use fabrics on walls and rugs and place rug pads on floors to soften sound.

Furnishings and Materials

Once the shell is taken care of, you can focus on making the environment more comfortable in the following ways:

- Display pictures and other things that you and the children will enjoy looking at and which will have a calming effect on everyone.
- Furnish the room with soft seats, couches, cushions, and pillows that invite children and adults to curl up and get cozy.
- Provide contact with nature: a garden, small animals, a fish tank, a terrarium, a bird cage, indoor plants, window boxes, flowers.
- Create multilevel surfaces, such as steps, platforms, and lofts, so that you can meet comfortably, eye to eye, with infants and toddlers.

Convenience

A convenient setting meets the needs of both children and caregivers and makes the space workable. You need to be able to get what you need easily. Infants and toddlers need to see and reach their own play materials. Inconvenient arrangements cause frustrations and unhappiness in children and fatigue and tension in caregivers.

Enhancement of Well-being

A convenient environment helps you care for infants and toddlers by making health and safety easier to ensure. When diapering and food preparation areas are convenient, you do not have to leave a child to find something. When areas are arranged conveniently, you are available when needed. The convenience reduces stress on you, which adds to everyone's well-being.

You get maximum health and convenience when settings and activities match. For example, a rug is not easy to

clean, so do not put one in the feeding or messy play areas. A rug stays wet and promotes the growth of germs. A washable floor is a better choice for feeding and messy play areas.

You can prevent illness and encourage health by making the practice of healthful habits convenient: (1) organize all areas for quick, easy cleaning; and (2) keep supplies and cleaning equipment nearby but out of children's reach.

Order and Accessibility

When materials are set out in a convenient way, volunteers, parents, and part-time help can come in and work easily. They can find what they need right away. They can also help put things away without having to ask you where to put them because everyone can see where the objects belong.

A well-ordered and convenient setting makes activities more predictable. You know what to expect. The children learn what to expect. A well-organized setting facilitates finding things. Children know where to go when they want or need something. A predictable environment helps everyone feel secure.

To create order and accessibility:

- Put play materials within the children's reach on open shelves.
- Have enough accessible storage places for extra toys and supplies.
- Keep all items organized; give each toy or material its own storage place.
- Have comfortable places for caregivers to sit at the children's level.
- Use an open-center arrangement for ease of movement, with large permanent equipment around the perimeter of the room.
- Locate diapers and changing table within easy reach for you but out of reach of infants and toddlers.
- Use simple, portable barriers to keep toddlers from hurting crawlers or young infants and to keep crawlers from interfering with toddlers' games.
- Create separate activity areas for the children but maintain an open view for caregivers.

An Enriched Program

Convenience means designing your environment so that movement and placement of equipment makes the day easy for

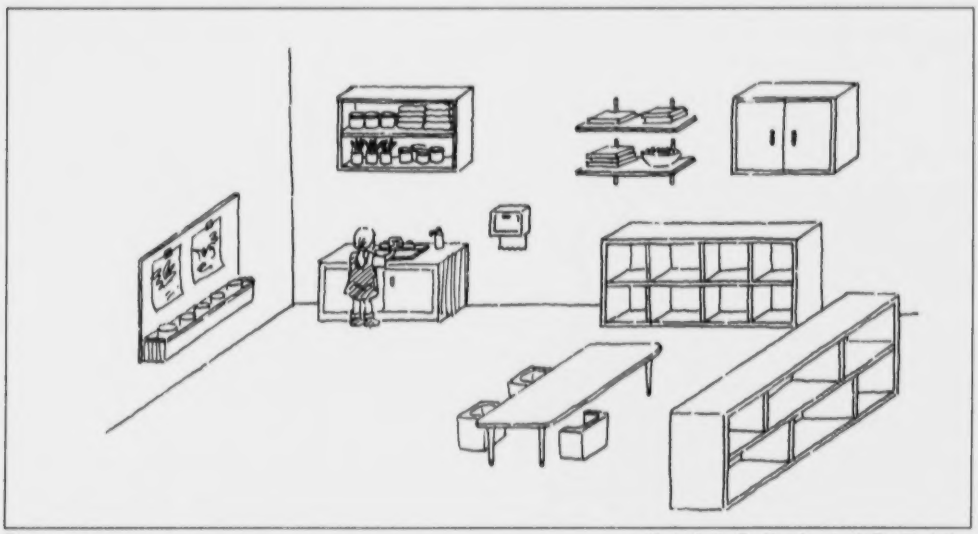


Figure 1

Illustration by Paul Lee from Louis Torelli's design

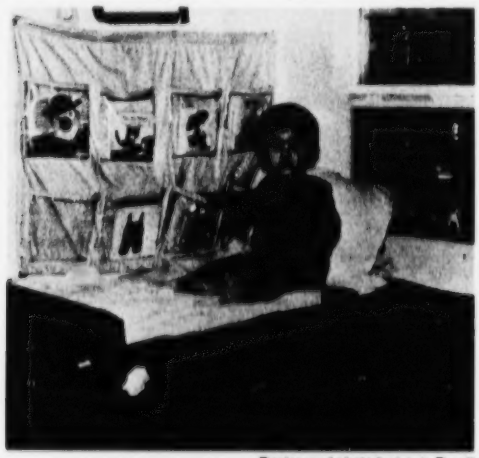
you and the children. Convenience means having the right thing in the right place. It also means having plenty of well-organized storage space, handy shelving, cubbies, and materials. These kinds of arrangements free up valuable time and allow you to provide more choices of activities to the children. A convenient environment can enrich your program. Although infants and toddlers do not usually play in storage areas, convenience is a wise investment. Every time you find an activity is easy to do, you will be glad you paid attention to convenience.

Child Size

An environment that fits one's size feels right. A place that does not can feel bad. Adults feel out of place sitting in tiny chairs at elementary schools on back-to-school nights. Young children may well feel out of place in a room with only adult-sized furnishings. Unless children have some child-sized equipment, they may feel as though they live in a world of giants.

Furnishings and Equipment

Child-sized chairs, tables, shelves, and climbing structures help toddlers play, reach materials, and move things. Infants and toddlers need to be able to reach playthings safely without climbing or stacking furniture. For example:



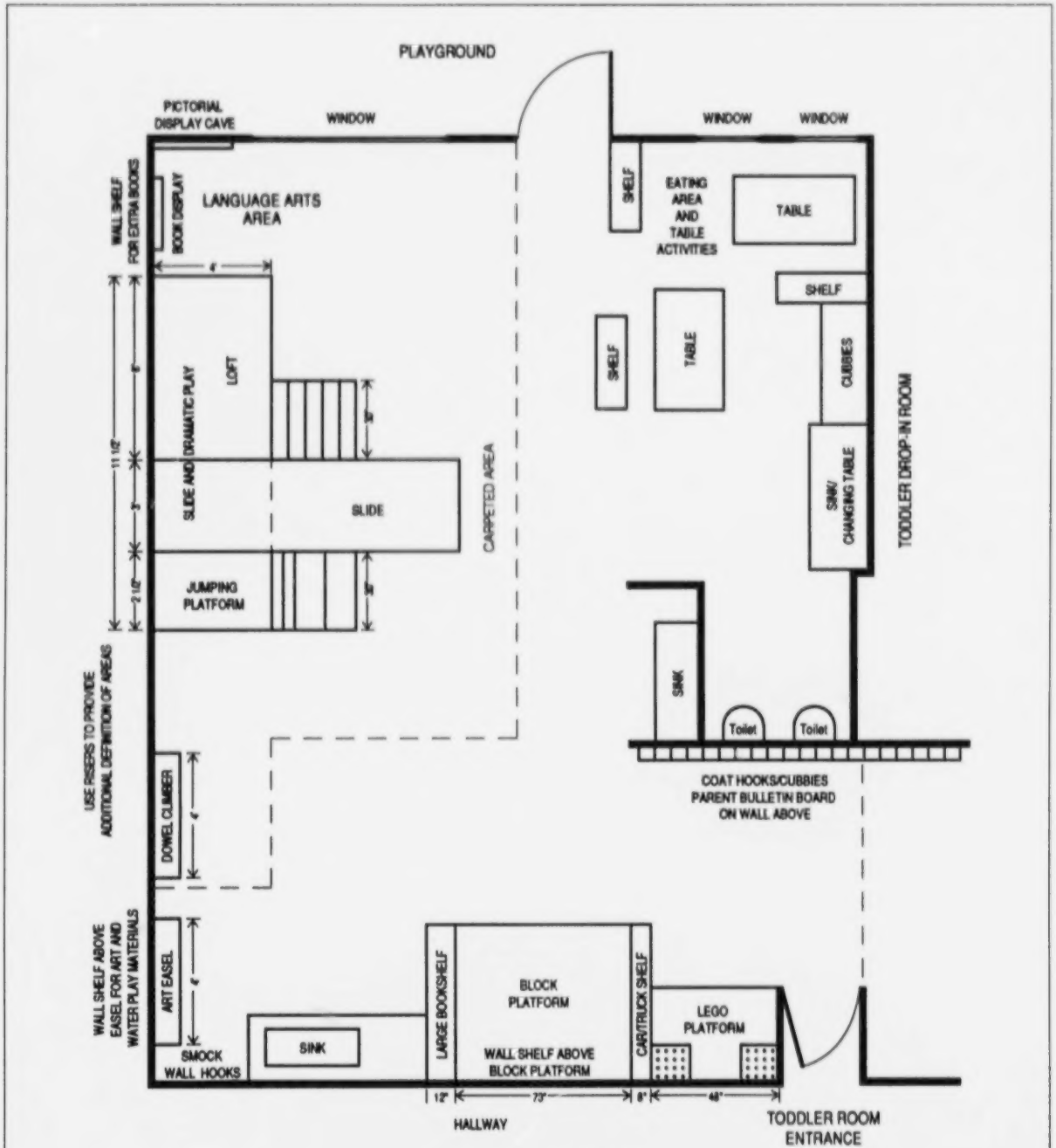
Design and photo by Loula Torelli

Photo by Sheila Signer

- Tables for children under fifteen months of age should be 12 to 14 inches high; for children over fifteen months, 16 to 18 inches high.
- Chairs for children under thirty months of age should be 8 inches high; for children over thirty months, 10 inches high.
- Slides for children under eighteen months of age should be 24 inches or less; for children eighteen to thirty-six months, as high as 3 feet.
- Mirrors should be at floor level so the youngest infants can see themselves.
- Easels for toddlers should be 10 to 14 inches off the ground, depending on age.
- Child-sized steps should be 4 to 5 inches high.
- Toys should be within reach on low shelves, less than 24 inches high.
- Riding toys should be easy to move and easy for children to get on and off.

Flexibility

The environment should offer many choices: movement, quiet play, rest, messy activities, privacy, a chance to be with



TODDLER ROOM

SEPARATE LEARNING AREAS SUPPORT FLEXIBILITY

1/4" = 1'

Figure 2

Design by Louis Torelli

other children, and a place for a caregiver and one child to be together. Offering all this under one roof requires flexibility—the ability to make changes easily and to use some areas for more than one purpose. The environment needs to:

- Meet the needs of both the youngest infant and the oldest toddler in your group.
- Respond to the preferences of different children.
- Meet each child's daily needs for vigorous play, quiet rest, privacy, cuddling, and time with playmates.
- Meet the changing needs of children as they grow.

Space and Equipment

Flexibility helps you maintain a truly interesting environment for infants and toddlers. To be able to change the space easily, you need lightweight, easy-to-clean equipment so you can move things about without strain. Ways to create flexibility include:

- Using easy-to-move equipment
- Keeping the center of the room open for a variety of activities
- Having different kinds of toys and equipment within easy reach
- Using foam cushions or bolsters as barriers or fences
- Using an empty plastic wading pool for young infants' play
- Using a pile of pillows to separate groups or activities
- Using modular boxes, blocks, or risers (4 to 12 inches high) to create instant room dividers or playhouses
- Using an area for something other than its original purpose: the feeding area for messy or water play, the couch for one-to-one interaction or storytelling

Movement

Movement is essential to growth, allowing young children to practice their physical skills and develop their ability to think; movement provides information about the world. For example, if an environment has carpeted shallow steps to climb on, infants can safely learn lessons of gravity.

In an environment that is safe for movement, you can let infants explore on their own. Their ability to do so tells the infants they can be somewhat independent but still secure. And because the infants

Photo by Sheila Signer

can move about on their own, you are freer to observe or work with individual children. You can ensure safe movement by providing:

- Clean floor surfaces
- Fenced and groomed outdoor play areas
- Durable and secure climbing structures built over grass or sand

Do not use walkers, swings, or jump seats because they limit natural movement and encourage accidents.

Toddlers will move whether moving is safe or not. They constantly try out new movement skills and explore their independence. A well-designed environment encourages safe exploration but gives toddlers the feeling of risk, of expanding their limits. At the same time, the setting must be free of really dangerous challenges and discourage unsafe explorations. *The idea is to let toddlers do what they need to do and to enable them to do it safely.* For example, toddlers need to:

- Climb—where the ground is padded
- Run full speed—down a carpeted hallway
- Jump—and land on a mat

Arrangement of Space and Equipment

To encourage infants and toddlers to move freely, provide:

- Safe open spaces to crawl
- Multilevel environments—lofts, ramps, pits
- Surfaces with many different textures
- Floors that are not slippery
- Clear, open pathways
- Nearby outdoor play area
- Steps or ladders for climbing
- Large-muscle equipment—tunnels, slides, mattresses, rocking boats, balance beams, hammocks, risers, pillow piles, tumbling mat, playpit

Arrange the furniture and large equipment to encourage safe, free movement. Watch for anything that limits movement. Young children need to be able to sit, sway, crawl, bounce, run, climb, jump, grasp, bend, turn, stamp, march, and roll. You need to know the children are safe while they are doing so. Your environment should both safely encourage such activities and allow for easy supervision.

Choice

As a caregiver you will want to offer plenty of choices. An environment with numerous textures, activities, and equipment provides infants and toddlers many healthful alternatives—which also helps you. Letting young children choose their own activities reduces a caregiver's stress. An environment with a good mix of developmentally appropriate activities lets caregivers learn, too. This kind of environment frees you to observe and respond to the children. By watching, you can see what attracts each child, observe a child's skill level, notice what each child finds challenging, and learn how better to prepare the environment for future learning. Letting children choose makes doing a good job easier for you.

Range of Choices

The setting should offer a range of developmentally appropriate choices that support growth. Children who can choose what is interesting to them will pick what meets their needs. Self-selection allows children to feel that what they want to do is acceptable to adults.

You can ensure rich, developmentally appropriate choices in the following ways:

- Set up areas for different types of activities: large-motor, small-motor, sensory perception, creative expression.
- Cover the floor with a variety of textures so that different kinds of activities can easily take place in different areas. Diverse floor surfaces

will prompt you to provide a range of activities.

- Allow for privacy so that children have the choice of being alone or in a small group.
- Keep the center of the room free so the children can see the play options around the perimeter.
- Arrange low toy shelves so that objects have space around them and children can focus on each choice.
- Use safe outdoor space for a range of experiences, not just large-muscle activities. Provide sights, smells, textures, water plays, and areas for activities such as telling stories or singing songs.
- Offer a variety of playthings and materials, and change what you offer from time to time.
- Make opportunities for water play available daily.
- Provide frequent chances for messy play.

In sum, whenever you study your environment, either when you are designing a new one or rearranging your current one, use the eight key concepts as your guide. Try to get in the habit of considering these concepts each time you contemplate a change. Ask yourself, how will my environment best (1) ensure safety, (2) promote health, (3) provide comfort, (4) be convenient, (5) be child-sized, (6) maximize flexibility, (7) encourage movement, and (8) allow for choice?

Section Two: Planning Your Infant/Toddler Care Setting

No single plan can show you exactly how to set up an ideal space for your needs; too much depends on the particulars of your program. If you are caring mostly for young infants, your needs will differ from those of someone caring for older infants. Programs serving mixed age groupings that include young infants, mobile infants, and older infants require different arrangements from those for programs serving children from only one age group.

The types of environmental arrangements you can make will also depend on whether you are providing care in a permanent child care setting or in a setting used for other purposes. For example, family child care programs that use living space, and many programs in churches that use space needed for other purposes on weekends and evenings, have different considerations than programs located in sites used solely for child care. Your setting will also have certain features you cannot change easily. These are called fixed features. You will need to adapt your environment to your program's special conditions and fixed features.

Many program considerations will come into play as you design the environment to fit with the unique aspects of your program and setting. For example, if you work in a center with other caregivers, your needs will differ from those of the caregiver who works alone. Programmatic issues you must consider include:

- Who will be there—how many children of what ages and age groupings, and how many caregivers?
- How much space do you have available?
- How much other space can you use (hallways, other classrooms, outdoor areas, and so on)?
- What are the special features of your environment?
- Can you make permanent environmental changes?
- How will weather affect your use of space?
- What is the purpose of your program? What are you trying to accomplish? How will the environment help or hinder you?
- How many hours a day will children be with you?

Before you arrange your environment, look at it from the perspective of an infant or toddler. See how the setting works for the small child by getting down and moving as an infant does. Think about how a crawling child would navigate. Consider the unique aspects of your program; particularly important are the ages of the children and the setting in which you provide care.

Environmental Needs of Different Age Groups

When setting up a caregiving environment, one of the most important issues to

consider is the children's ages. Infancy is generally described as the period from birth through twenty-four to thirty-six months. Obviously there are many differences in the needs and abilities of children in that age range. The video *The Ages of Infancy: Caring for Young, Mobile, and Older Infants* presents more information on this topic.

You need to consider five issues related to age when you are setting up environments for infants and toddlers:

1. Are you going to serve children of about the same age or children of mixed ages?
2. If the children are about the same age (young, mobile, or older), what needs does that specific age group have?
3. How will you design your environment to meet those needs?
4. How will you be able to alter the environment as the children grow older or you bring in younger children?
5. If you are setting up mixed age groups, how can you maximize the development of all the children in the group?

Young Infants (Birth to Six or Eight Months)

The young infant who is not yet crawling needs to feel secure in the environment and trust the people who are caring for him or her. When you are setting up environments to serve very young infants, remember the following:

- Small numbers of children and adults are recommended.
- Diapering, feeding, sleeping, and play areas should be set up to allow quiet, personal contact between the caregiver and young infant.
- Young infants are usually taken to interesting parts of the environment, or things are brought to them.
- Young infants like to be held.
- The environment should facilitate face-to-face and skin-to-skin contact between caregiver and child.
- Watching and exploring with the hands and mouth are prominent learning activities of young infants.
- Infants spend a great deal of time looking up toward ceilings, walls, and lights.
- Young infants like to practice body movements while they are lying on a firm, cushioned surface.

Design and photo by Louis Torelli

Mobile Infants (Six or Eight to Fifteen or Eighteen Months)

Infants who can crawl, sit up, creep, rock, climb up and down ramps and low steps, and cruise (toddle while hanging on to a support) fall into this category, as do new walkers. The young explorers need an environment that encourages them to use their new skills. The message mobile infants should get from the environment is that it is okay to go after and explore what is there. The message they should get from the caregiver is, "I have confidence in your ability to safely explore the environment." When you are setting up environments to serve mobile infants, remember the following:

- Mobile infants are at the peak of sense and motor exploration.

Design and photo by Louis Torelli

- The infants put almost everything in their mouths.
- Dangerous, breakable, and costly objects should be kept out of the infants' reach.
- You need to be able to see the children and get to them quickly. Be available but do not hover.
- Some risk taking by mobile infants needs to be allowed.
- Infants do not always have to be close or get in your lap to feel secure. Sometimes a reassuring glance will do.
- Peer play and conflict begin at this age.

Older Infants (Fifteen or Eighteen to Thirty-six Months)

These youngsters can walk, slide, tumble, climb up, over, and into things, and get up and down stairs. The older infants' small-muscle activities include taking apart, stacking, setting up, and knocking down. The infants keep busy collecting, filling, and dumping. They choose, sort, match, inspect, and carry things. The infants rearrange, put in and take out, hide, and discover. They imitate others, play with dolls, paint, draw, smear, and mix. They pour water, sift sand, splash, and make sounds. Older infants use words and understand directions. They can help themselves by washing, eating, and doing some dressing.

Environments for older infants must offer variety and opportunities to learn about choice and responsibility. Exploring their individuality is often the central issue for children of this age. They need caregivers who will create an environment that supports creativity, independent action, and curiosity and who will help the infants learn how to share their environment with others.

When you are setting up environments for older infants, remember the following:

- The children love dress-up and fantasy play.
- Choices among activities are important to the older infant.
- Peer play happens more and more often.
- The children like their products displayed.
- The children need room for large-muscle movement.
- The children sometimes do not consider the needs or safety of younger infants in rough-and-tumble play.
- Older infants need to know the rules for treating the environment and the equipment in it.
- The children can use learning centers offering small-muscle activity and sensory perception activities.

Photo by Carol Wheeler

If you pay attention to age differences when you set up or change your environment, you will find it easier to meet the needs of all the children you serve, whether in mixed or homogeneous age groups.

Family Child Care and Center Care

Family child care home and child care center environments do and should differ. Each has strengths to draw on when designing infant/toddler care environments. One common mistake is to try to turn a home into a mini-center. Center designers who have been told infant care should be homelike may try to duplicate a home in the center. But you should utilize a setting's unique aspects rather than try to imitate another setting. Whether your setting is a home or a center, the goal is the same: to provide the best care possible for infants and toddlers.

Family Child Care

The home provides a rich environment with many essentials already in place. Activity areas are usually differentiated, floor surfaces vary, and comfort is easy to provide.

A family child care provider must decide whether to use the whole house or to create a child care setting in one room. Either decision has its advantages. One room is usually easier to clean and maintain. Child-sized equipment can be left in place and activity areas established. The disadvantage is that the infants and toddlers miss out on the richness of exploring different rooms in a home and the familiarity and comfort that the experience provides. Some experts suggest using the whole house for just those reasons.

If you decide to use the whole house, a few tips may help. If you have money to spend, put it into basics: buy good basic furnishings, comforting wallpapers or paints, good storage, carpets, furniture, and outdoor fences. Then improvise. For example:

- Use the couch for large-muscle activity (climbing).
- Use the kitchen floor for messy play and the bathtub for very messy play.
- Use the coffee table for small-muscle games.
- Throw a sheet over two clotheslines or a table to create a good private play space (inside or outdoors).

Photo by Sheila Signer

Be creative! Consult children's equipment catalogs for examples of good equipment. Then look around your home. See whether you have things that serve the same function if you use them creatively.

If you use your whole house, make sure you remove dangerous and valuable objects, and be sure the house is childproof. Instead of constantly giving infants the message, "Don't touch!" you want to be able to give them the nurturing and friendly message, "Come in and share my home with me."

Center Care

The main issues of center care concern size and numbers of adults and children together. Resist the temptation to have your infant/toddler center look like a preschool. Infants do best in small groups. If you have one large room, break it up into three or four small areas rather than have many infants and caregivers together. Large groups interfere with the personal relationship between an infant or toddler and his or her primary caregiver. Small groups decrease health and safety risks. Infant and toddler care works best in groups of six to eight or less. Never plan environments for infants in groups larger than ten.

Division and Definition of Space

After you have thought about the unique aspects of your program, you can start designing the environment. Just as your program is unique, so are the special conditions and fixed features of your environment. The amount of space, the quality and quantity of outdoor space, and the location of doors, windows, walls, plumbing, and so on are a few of the many features that differ from setting to setting. That is where environmental design becomes creative. Your task is to create a setting that blends its unique features with the eight key concepts described previously: safety, health, comfort, convenience, size, flexibility, movement, and choice.

Deciding how to divide the space to emphasize those key concepts is an important task. You want to separate messy activities from neat ones, quiet from noisy, and large-muscle from small-muscle. You want to set a mood. Caregivers do those things in many ways. You may find it helpful to consider the following strategies when you define and divide your space:

- Set up activity areas.
- Create boundaries and corrals.
- Provide clear, visible order.
- Keep the center open.
- Use many levels.

Activity Areas

Think of activity areas as separate places, like little islands, then work to make them feel separate. You can do that by making sure each activity area has these three qualities:

1. A separate physical location
2. Boundaries that separate it from other areas
3. A mood, feeling, or personality

Arrange the space so different areas are set up for different activities. Each area should have its own function. For example, one area is for movement or large-motor activity; another is for quiet rest. A varied arrangement lets children who are sometimes energetic and sometimes sleepy find what they need.

Some one-room centers leave the room completely open, without activity areas. This approach usually leads to clustering of children and caregivers. Infants and

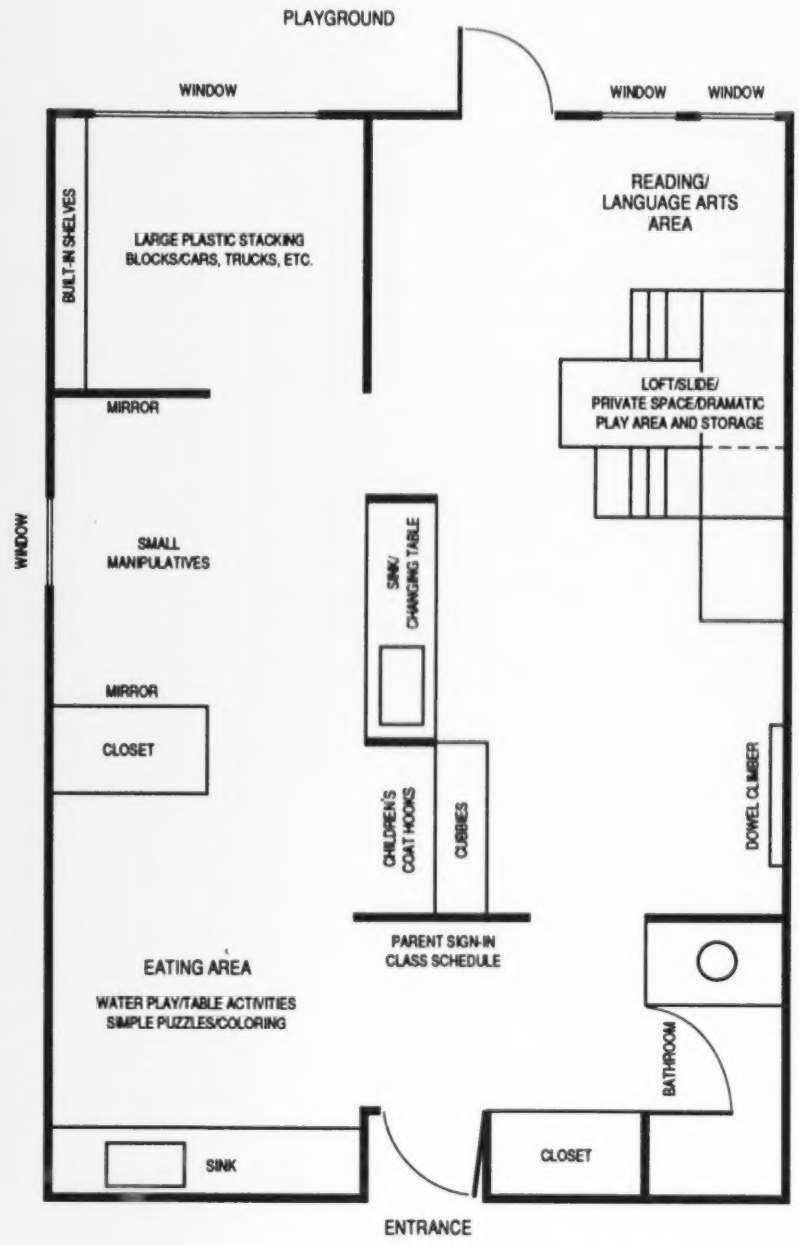


Figure 3

Design by Louis Torelli

toddlers do better in small rather than large groups; the latter can lead to hair pulling, toy grabbing, or stepping on someone else's foot. In contrast, separate activity areas encourage children and caregivers to spread out. The children are likely to have fewer conflicts. Separate activity areas also encourage children to develop a sense of place. They learn that it is acceptable to jump, run, climb, and fall in one part of the room but not in the quiet rest area.

Each activity area should have its own special "feel," making it a mini-environment. Such arrangements prevent boredom and offer sensory variety. Check your activity areas each week and rotate in new materials without changing the area's general purpose. Rotating things keeps activities interesting.

Mood is also important. The mood of an area should reflect the area's activity. A quiet, restful mood in a large-motor area would be a mistake. Creating a restful mood in an area where you and one child can curl up together is perfect. Soft colors and furnishings with lots of pillows are welcome in a rest area. Create mood with wall colors, pillows, pictures, banners, hangings, furniture, plants, quilts, wall covers, and layout. Even when you use color for boundaries, use soft neutral colors like browns, greys, rusts, ivories, or pastels. These colors can be warm without being too stimulating; let the children's clothing, playthings, and art brighten the room. Primary colors are best used only for small items, area outlines, or the moldings.

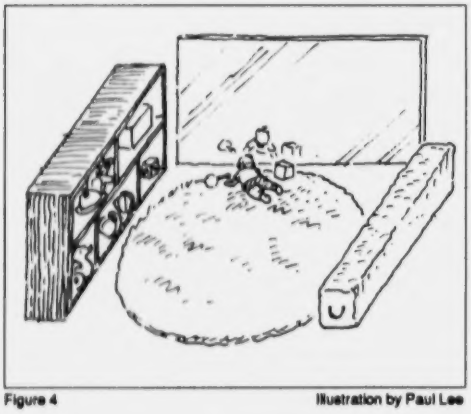


Figure 4 Illustration by Paul Lee

If young infants are in your group, you can create a small, safe haven inside the playroom just for them. Figure 4 shows a playdeck with its own storage space for toys. The deck can be open or closed, with a flat or sloping floor and portholes or Plexiglas at the end.

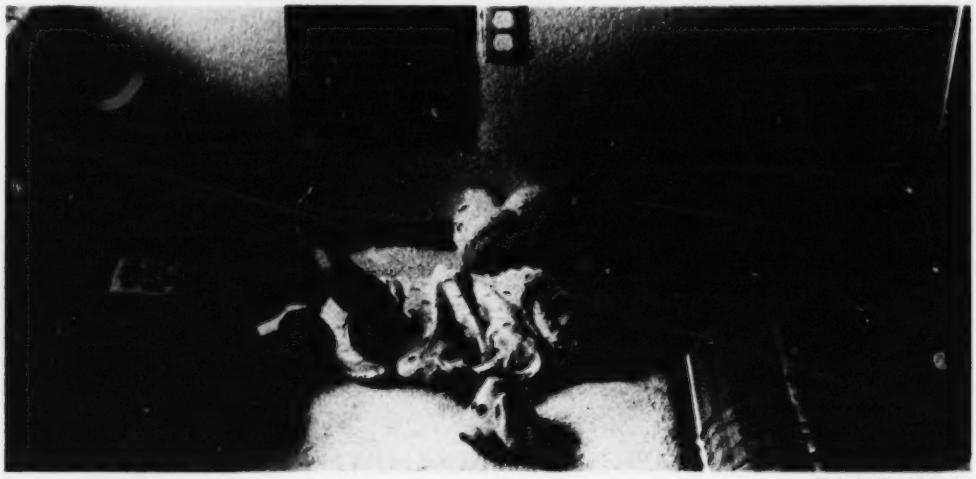


Photo by Carol Wheeler

Boundaries and Corrals

Use physical markers to separate activity areas. These boundaries are often rooms, but they can also be seating, storage, developmental barriers (anything that separates children because of their level of development, such as a pile of pillows), and noise absorbers. A corral is a boundary that keeps one age group or activity from another. A portable fence will work as a corral.

You can separate activity areas with physical boundaries (furniture, shelving, risers). A corner requires fewer built boundaries because the walls provide two sides. Most boundaries should separate activities without blocking your vision. Options for low boundaries include foam beds, mats, area rugs over the carpeting, low risers, and shelving. Or you can use slats, cutouts, or plastic panels for see-through boundaries.

Install railings or a handhold for a cruiser. Leave wide pathways for an unsteady toddler. Arrange the layout so children can see the different areas and get to them easily. Wall and rug color is sometimes used as a boundary and a simple way to define activity areas. The color tells young children where an activity area begins and ends.

Clear Visible Order

After dividing the room into separate activity areas, make sure the arrangement of materials and equipment is clear and visible to all who use the space. There should be a reason that materials are grouped together. For example, if one of your areas highlights small-muscle activities (puzzles, bead sorting, coffee-can banks and chips to put in and take out), those types of materials should be found consistently in the same area. For your convenience, storage should follow the same order when possible.

An example of creating visible order is the way you put puzzles out for infants and toddlers. Avoid stacking the puzzles. Young children cannot see the ones underneath. For the children's use, put each puzzle flat on a table, shelf, or floor. Stack puzzles or put them in a rack only when they are being stored.

Another example of how to create clear order is to display dress-up clothes appropriately. Keep them in your creative/expressive activity area. Do not pile them into a box; showcase the clothes. Make them obvious and inviting to the children. Put large plastic hooks on a wooden board mounted on the wall or hang dress-up clothes on a coatrack. Place a picture for

Photo by Sheila Signer

each item near the hook: coat, hat, dress, sweater. This arrangement encourages the children to use certain areas for specific activities. It also makes cleanup easier and teaches children about order and how to hang things.

When you set up a clear, visible order, playthings tend to stay in their areas. They do not get scattered, and children learn where play materials belong. Children can even help put things away when you give them small, clear clues.

Open Area

No matter what type of setting you have, plan to keep part of it open. Placing all the large furnishings and equipment along the sides of the room allows you to keep the center open and to alter it as needed. An open center lets the children see what activities are available throughout the room. The children can also get where they want to go easily. They can see the caregiver across the room, and the caregiver can see and respond to any child who needs attention. An open center creates maximum flexibility and lets children navigate easily between areas.

Define the size of your open center after considering fixed elements, such as windows and doors. Keep the center free of large, heavy equipment or furniture. The space may look empty initially, but you can fill it with many activities each day. A central open space helps you create a rich, varied program.

Multiple Levels

Set up your environment so that crawlers and walkers can both see and get to many levels. Use slopes, stairs, or small ladders. Create a pit children can get down into. Different levels provide variety, diverse viewpoints, and numerous chances for movement. By creating various levels, you also expand the space. For example, you can place a big chair or playhouse on the floor level, then use a loft over the same floor space for a climbing apparatus with a platform to play on.

Photo by Sheila Signer

The Big Picture

Each part of the environment has an impact on the children and adults who use the space, so think about the kind of effect you would like each area to have. To make the best use of your resources, think of all the objects in the room as contributing to or detracting from your program's goals and plan for each object's environmental contribution.

Consider the location of the doors and windows. Design your setting around the fixed features. For example, if you have only one small window 3 feet from the floor, way out of reach of the children, use that source of natural light creatively. Build a loft with its platform right below the window. The children can climb up and look out. Check for any special features like skylights, built-in room dividers, small alcoves, or changes in floor level.

In a small room where space is at a premium, think of what young children

Design and photo by Louis Torelli

need for their growth and development, and make equipment do double duty. A low, carpeted room divider can be a place to sit, something to climb over, a storage area for books or toys, and a hiding place. A table used for snacks or lunch can hold a sand tray or water container for messy play at other times. In cramped quarters, make the maximum use of everything to give the children what they need, and be creative in the use of many levels.

If you have enough space, make sure you do not cram it with too many things. Emphasize large-motor activity and fight the inclination to make little-used space a dumping area.

After you have arranged the room, see how the children use it. Do they get stuck in a corner that has only one way out? Do they run into each other in a narrow pathway? Do they stay in one area or wander freely?

After watching how the children use the environment for a week or two, you may want to change things around. Experiment. Follow your hunches. You can rearrange the layout until you find one that works, but make sure you keep in mind the eight key ingredients and the impact the change will have on the children.

Section Three: Setting up Specific Areas

The key concepts and special concerns presented in the previous sections provide the guidelines for environmental planning. Those guidelines must be applied to the specific areas you want to create and the specific activities you want to encourage. Consider the following areas when setting up your infant/toddler environment: entrance and parent communication area; learning and developmental activity centers; peer play areas; multilevel areas; rest and sleeping areas; toileting, washing up, feeding, and food preparation areas; storage and shelves; and outdoor space.

Entrance and Parent Communication Area

Entering and leaving the child care setting are important activities. A well-defined entrance creates a good place for parents to drop off their infants and toddlers without having to walk through the entire room. The entrance also sets a mood. An attractive and cheerful entrance communicates to the children that they are welcome to enter a special place set up for them.

The entrance to the center should be clearly defined. Entrance activities need to take place close to the doorway. How the area is arranged is important. The entrance often becomes cluttered or is ignored. The area should have a place for the children's belongings, a sign-in sheet, and a location where parents can read information. Remember that this area gives the first and last environmental messages to infants, toddlers, and parents each day.

Some centers provide individual cubbies for each infant or toddler; sometimes the cubbies contain a photo of the child. A simpler option is to insert large colored plastic hooks in a wooden board, which is placed low enough so children can hang their own jackets, and put a child's picture and name above each hook. Shelving can be installed above the

Figure 5 Illustration by Paul Lee from Louis Torelli's design

hooks for the children's day bags and changes of clothing.

The sign-in sheet and parent information board are important. A good sign-in/sign-out sheet has a space for parents to leave messages (for example, "had a rough night"). Caregivers can also leave messages for parents about the day—what the child ate, bowel movements, or anything special that happened.

A bulletin board near the sign-in book is for parent education and communication. Parents can put up notices about babysitting co-ops, classes, social events, garage sales, and parent groups. Caregivers can post information about public health, infant/toddler development, meetings, and parenting skills.

The entrance area can create a place where the child's family and the child's daytime caregivers can talk and get to know one another. Put energy into making the area welcoming and attractive. The effort will pay off.

Learning and Development Centers

By creating small areas focused on particular activities, you can help infants and toddlers develop and safely experience the world around them.

Photo by Sheila Signer

Small-muscle Activity Areas

Young infants engage in small-muscle activity wherever they happen to be, so a small-muscle activity area is unnecessary for them. Because young infants constantly mouth (put things into the mouth), their toys should be large enough to prevent the infants from choking on or swallowing the objects. In a mixed age group, bringing the very young infant with you to the small-muscle activity area for the mobile infants and toddlers allows the different age groups to have contact and interact. Such mixed-age contact requires close supervision; young infants should never be left in the small-muscle area without adult supervision. Objects for small-muscle manipulation can also be brought to the infant one or two at a time.

At about twelve months of age, infants are ready to sort shapes and play with blocks. At first the infants will just play with the "manipulatives" and blocks, but eventually they begin to order the pieces. The area for small-muscle play is most often carpeted. A carpeted area for dumping reduces noise. Use a low-pile carpet so objects cannot get lost. Nearby shelves and storage are essential because the area can quickly become very cluttered if things are not picked up and put away after use.

The small-muscle area might be placed in an infant corral or on a platform built up with risers of 4-inch steps. Young children can focus better on small-muscle play if the area is clearly defined and no competing and distracting activities are happening nearby. You can build an instant small-muscle playpit for infants by using large pillows or foam cushions.

For toddlers, small-muscle play means dumping, sorting, and carrying around. The area should contain large lego-type blocks, string or large pop beads, peg-

boards, simple puzzles, table blocks, and other small "manipulatives." You can have low tables in this area or use any low surface for play. Tables are not essential; the floor or a low surface works just as well. Without tables, you have more playing room.

Crayons and art activities also offer small-muscle practice. A special favorite of toddlers over eighteen months of age is a chalkboard, which you can make using special green or black paint on well-sanded wood. Put chalkboards at the child's level on the wall or make them portable and bring them out for use as desired.

Attach a tracking tube onto a wall leading up to the small-muscle area. (The drawing to the right shows the slanted plastic tube attached to the wall.) A bin underneath holds toys. Two children can play together with the tracking tube: one child places toys in one end, the other child stands guard to pick the toys up at the other end. The tracking tube is also good for solo play.

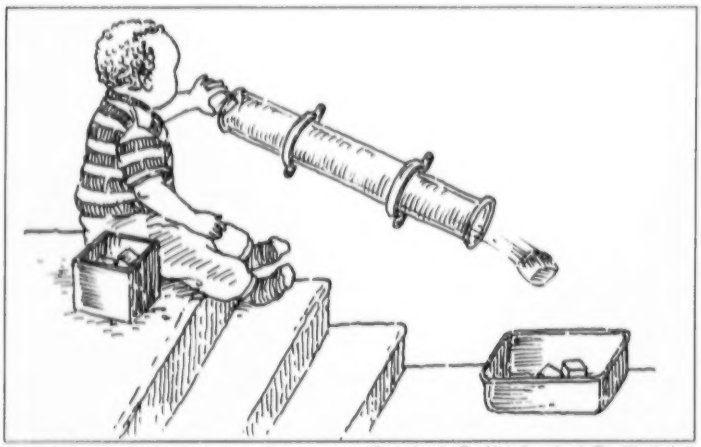


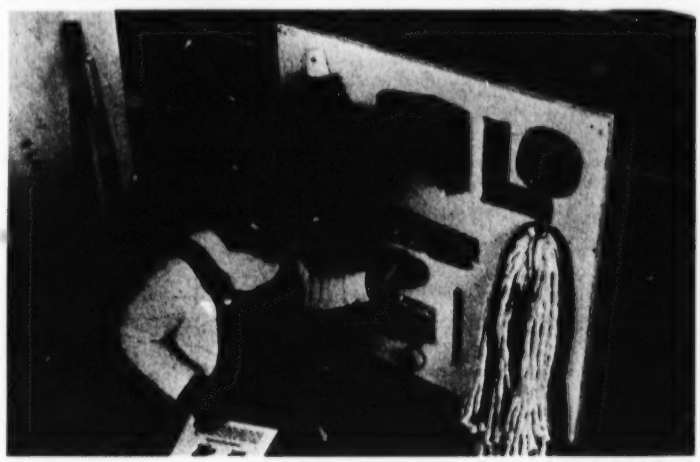
Illustration by Paul Lee from Louis Torelli's design

Sensory Perception Areas

The entire room offers sensory experiences, but you may want to set up one special place for these important learning activities. Using a corner for this purpose gives you two walls that you can cover with carpet samples, pictures, fabric hangings, or quilts. The floor, which may or may not be carpeted, can include many different textures and surfaces. Try to locate the sensory perception area close to a messy play area so that the water tables or tubs are nearby.

Include objects that change shape, such as mobiles or wind chimes. Have things that grow or move, such as plants and fish. A terrarium with frogs or turtles is another exciting idea. Use mylar or mirrored paper, under protective plastic, for the color and crinkly sound. Use texture boards on the wall or floor for infants. Sensory quilts with various fabrics and textures are also good for infants. They like to see and touch soft sculptures too.

Some sensory perception activities are temporary arrangements that need close caregiver supervision. Smelling, tasting, and touching different substances for comparison and fun can be done with a few children. The experiences do not have to happen in the more permanent sensory perception areas. Decide which activities you would like to have available daily and



Design and photo by Louis Torelli

Illustration by Paul Lee from Louis Torelli's design

treat those differently from your special sensory perception events.

Books and materials to support language development are usually kept in the sensory perception area. Plan some wall space for a bulletin board, which you can also use for special displays. Put up pictures and shapes, providing toddlers a chance to ask one of their favorite questions: "What's that?" Change the pictures from time to time and place everything at the child's eye level. Covering pictures with clear contact paper prevents the children from tearing and pulling them.

The environment should have a place for infants and toddlers to look at books, and the books should be available all day. Make the area a special place by using an A-frame bookrack to create a wall and make a small reading space. Another option is to have a raised platform in a corner of the room or along a wall. Carpet the platform and add pillows. Use a bookholder on the wall to display the books. Toddlers will get practice with motor skills by pulling the books out and learn about organization by putting them back.

The bookholder shown to the left is made from a sturdy canvas fabric with vinyl pockets sewn on to allow children to see the books. The design shown has room for six books. The whole unit gets a lot of wear and tear, so it has to be strong. Have a professional seamstress or tailor make the bookholder on an industrial sewing machine using strong thread. Screw the unit into the wall with a 1-inch by 2-inch piece of wood.

Change the books regularly. Use cardboard books for both infants and toddlers. They cannot turn the pages of cloth books by themselves. However, for very young infants you may want a supply of cloth books that can withstand pulling and chewing. You will also want books with paper pages so that you can read to the toddlers.

Design and photo by Louis Torelli

Large-motor Areas

Design this setting to provide opportunities for young infants to roll over, crawl, and pull themselves up. Mobile infants, especially cruisers, the ones who pull themselves up and hold on to something as they try to walk, need safe areas in which to move about. Toddlers should feel free to walk, run, climb, jump, tumble, and swing. Infants need areas separate from toddlers for maximum safety and freedom for both age groups during large-motor activities.

Equipment for developing large-motor skills includes foam or air-filled wedges,

seats, tumbling mats, air or water mattresses, low balance beams, carpeted risers (from 3 to 12 inches), adjustable ladders, large balls, tunnels, wheeled toys, beanbag chairs, nets, foam cubes or cushions, hammocks, wagons, swings, riding toys, barrels, bridges, doll strollers, couches, platforms, rocking horses, slides and ramps, bridges, small balls, swivel chairs, rockers, and pillow piles.

Hallways and stairs should be seen as part of the large-muscle area. You can put a barrel tunnel, a pillow hill, or other fun "obstacles" in a hallway. If you have carpeted stairs, make sure there are no loose edges to trip on. Build in a low handrail for beginning walkers.

Use multilevel equipment. An environment with ups and downs gives infants and toddlers good practice, but changes from one level to the next have to be manageable and should lead to something. For example, when stairs lead to a loft platform, the platform may have a special view of the room or more toys. Or a waterbed may be built on the top level of a platform.

One large-muscle activity option is to create an adventure room containing climbing bars and platforms with railings. The equipment can be set up so a child can jump off one level onto a mat or big foam mattress. The spacing between rungs can let two-year-olds pull themselves to the first level. A horizontal net challenges and delights most toddlers.

Another activity employs plastic milk crates, plastic cube chairs, or strong hollow blocks with small sanded planks. These materials are cheap and can be stored when not in use. Toddlers can create their own structure and crawl under or walk on it. You can use the same materials to build a follow-the-leader course or to make a "loft" using milk crates and a piece of sanded plywood. Put a mattress on top for softness.

Provide walking routes for cruisers. The back or front of a couch makes a good handhold. You can also buy a stair railing and attach it to a wall about 15 inches from the floor. Make sure the railing is smooth and varnished. Walking routes for cruisers need to be smooth and soft. A low-pile carpet works well. Remember to consider these "in-between" children when you design the layout of the room and allow a space for them.

Climbing is important to toddlers. It supports their need to feel independent, gives them a sense of mastery, and helps them figure out how space is arranged. Infants will climb no matter what, on a table if nothing else is around. So when you are planning an environment, ask yourself: What is here for toddlers to climb? The photo below shows a low-cost, space-saving option designed by Louis Torelli, a specialist in environments for infants and toddlers. The dowel climber is built on a wall and has a 1/8-inch or 1/4-inch Plexiglas mirror behind it, which lets toddlers see themselves climb. The climber is 4 feet wide and 5

Design and photo by Louis Torelli

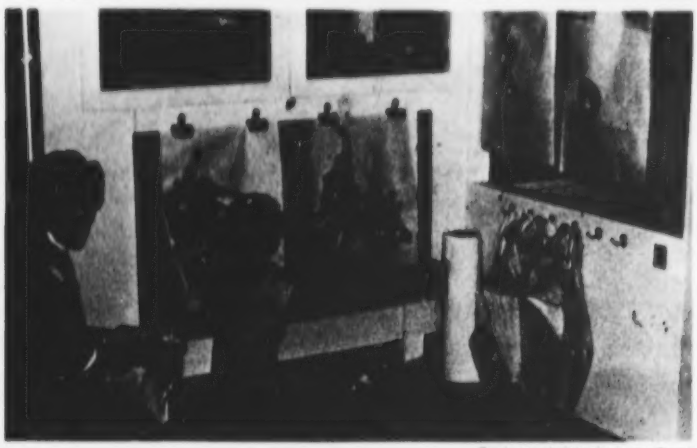
Design and photo by Louis Torelli

feet high. Dowels are set 8 inches apart. The bar that holds the dowels in the middle also divides the climber in two, allowing two children to go up at the same time. The entire climber is made with 2-inch by 4-inch hardwood and 1 1/4-inch dowels. The climber sticks out only 4 inches from the wall.

You can attach a removable slide to a climbing loft or build a slide into a series of risers so there is no place to fall. A double slide provides a great chance for shared fun. Children can go down holding hands or just looking at each other. The area at the bottom of the slide must be kept clear; place a mat or soft carpet there to cushion any falls. Toddlers will go up the slide from the bottom, come down on their bellies, and in general try anything. Slides for toddlers from eighteen to thirty-six months of age can be 3 feet high. For children less than eighteen months old, slides should be a maximum of 24 inches high.

A loft platform 26 inches high with an opening at one end can be used by toddlers for jumping onto a futon or air mattress placed below. At other times the opening of the loft can be enclosed by a gate that serves as part of a railing.

A free corner is a good place to cover the floor with air mattresses, gym mats, or foam mats placed side by side. Line the walls up to 2 feet high with carpet samples to soften them, too. Toddlers can jump up and down in this area.



Design and photo by Louis Torelli

Creative Expression Areas

The area that fosters fantasy play and peer socialization the most is the creative expression area. Tables scaled to size, about 10 inches high, where two or three children can work together, are ideal for crayons or playdough. Infants and toddlers can sit, kneel, or squat at that height, using their whole bodies while they work.

A wall easel built for two is helpful. For children eighteen to thirty-six months of age, painting is a motor activity. Toddlers use their bodies to paint, so they need plenty of elbow room. Mount a piece of plywood sideways; the size will depend on the amount of space available. Seal the board with semigloss paint and two coats of polyurethane to make it washable. You can build a paint tray onto the board at 10 to 14 inches from the floor. You can also use the wall itself for an easel. Paint the easel area a separate light color and add a paint tray.

Display the children's art work on bulletin boards that are low enough for the

children to see. The display gives children a chance to point to their work and talk about it.

Many expressive materials are messy, requiring special setups. The most important messy play uses water. Research indicates that regular water play reduces stress. Water is soothing; infants can watch its movements, hear the sounds it makes, and feel its temperature. Toddlers can pour water and use it for bathing dolls and washing dishes or cars.

A water table (a table with sides that can hold water or other things) is ideal for children two years old or older. The table should be between 18 and 24 inches high, depending on the age of the children, and placed on a noncarpeted, skidproof floor, preferably near a sink or in the kitchen. You can offer variety by making the water soapy, cold, colored, or warm. Have storage nearby for appropriate playthings: measuring cups and spoons, ladles, spoons, plastic containers, funnels, sifters, sieves, and sponges.

Fill the table with other substances besides water sometimes: beans, sand, Jello, rice, shredded paper, grass, oatmeal, large rocks, cornmeal, paint, or clay. Some toddlers spend up to 25 percent of their day around that sort of table.

Dishwashing tubs or kitty litter trays can work as water tables or sand trays. Put them on a steady table over linoleum flooring, not carpeting. Use small wading pools for messy infant play. Put the materials in with the infants. Many family child care homes use the bathtub for finger painting and other messy activities.

Troughs built around a faucet at ground level allow for further play in the water. Make the sides 6 to 12 inches high and place the troughs on a floor surface that is easy to mop.

Peer Play Areas

Peer play will occur throughout the environment, particularly among older infants, but there are specific ways to encourage interaction. Although setting aside a specific area for peer play is not necessary, certain environmental arrangements should be made throughout the setting to encourage peer play. Researchers have found that fixed equipment, such as climbers and slides, stimulates cooperative peer play, as do hallways and stairs. Toys and planned activities do not work as well.

A narrow slide can lead to trouble because toddlers often fight over who

Photo by Louis Torelli

Design and photo by Louis Torelli

goes first, but a wide or double slide fosters peer play. Infants less than eighteen months of age usually prefer a single slide with handrails on each side. Toddlers do well on a wide slide. An alternative that works for both infants and toddlers is to have double slides, two slides side by side. Leave 2 inches between the slides so no fingers can get caught.

Make all passages wide enough for two children (at least 30 inches); passages include the stairs up to the loft platform, a walking ramp, slides, the climbing equipment, and the stairway landing. You can also arrange furniture to support peer activities. For example, a round table with two or three chairs encourages peer table work. When arranged for dressing up, the semi-enclosed area under a loft can be just right for dramatic play. The loft platform itself can easily be occupied by two or three toddlers.

Dramatic play areas always stimulate peer play. Older infants set out dishes, pretend to wash them, or serve pretend food. Include in this area numerous household items for children to handle and carry around, using real things whenever possible. You can often get good secondhand plastic plates, metal tableware, and sturdy pots and pans at thrift stores or garage sales. Spools 16 inches high from electric companies make good low tables for two or three toddlers. Other items for dramatic play include telephones, dress-up clothes, mirrors, mops, brooms, purses, suitcases, dolls, boxes, doll furniture, and stuffed animals.

A tunnel is great for social play. It must be wide enough for two toddlers to sit inside comfortably. The middle can have a place, also big enough for two, for children to stand up and look about. Build portholes along the sides to allow children

Photo by Sheila Signer

to peek in or out. Make an instant tunnel from a sono tube—a large tube made of stiff cardboard. Used for pouring concrete, sono tubes come in different sizes up to 4 feet wide. Check with a construction company for availability. Also explore industrial areas of town for leftover materials that you could turn into playthings. (Make sure all materials are safe and nontoxic.)

Mirrors also encourage peer relations. Use Plexiglas mirrors, which you can order from a large plastics company. Make sure the mirrors are full length and wide enough so that two or three infants or toddlers at a time can sit or stand in front of them. Try to put a mirror near the dress-up clothes.

Swings are for solitary play, but rocking boats can be for two infants and help young children learn how to cooperate. Rocking boats also enable two children to have fun moving together. A double hammock made of cloth is another place in which two toddlers can swing or relax together.

Set up sturdy plastic or inflatable wading pools without water. Add blankets and dolls to create a small, safe play area for two or three infants. This arrangement gives infants a quiet place to focus on their play. If you put the pool near a chair or couch, you can sit nearby and hold one child while others are playing.

Add curtains here and there to create places for children to play peek-a-boo; for example, hang a curtain from the overhead loft into the play area. Cutouts or portholes in tunnels or loft fences also make good peek-a-boo places. Caregivers can also use small pillows, books, or pieces of cloth for peek-a-boo games with infants.

Multilevel Areas

Options to create a multilevel environment include lofts, raised platforms, playpits, movable risers, and furniture, such as chairs and couches.

Lofts

Lofts, which can include platforms, stairs, ramps, slides, tunnels, and suspension bridges, may be used for privacy, small group activities, and large-motor practice. The loft platform does not need to be higher than 36 inches, the height of a tall toddler. At this height, you can handle a child easily and can look the child in the eye. Use see-through loft boundaries so the child does not feel caged. Make railings from wooden slats or Plexiglas panels. If the loft is more than 36 inches high, make sure it is safe. Get a detachable slide for the loft. Build locked storage underneath for the slide and other materials.

Use the space under the loft for a dramatic play area or quiet play spot. Put mirrors, mylar or mirrored paper, mobiles, pictures, or textures on the ceiling (the underside of the loft). A low table in the area gives young children a raised surface for play. Small shelves under and on the loft provide storage.

Design and photo by Louis Torelli

Design and photo by Louis Torelli

Even a small room can hold a loft at one end. The loft can be as small as 4 feet wide and 4 feet deep. Stairs in the middle and a platform on either side create four separate areas.

Raised Platforms

Small raised platforms create spaces for special activities. In a small room, you can have one raised platform for working with blocks and another for books. Raised platforms keep similar activities and their materials in one area.

A reading platform built into a corner or against a wall can be as small as 4 feet by 3 1/2 feet. Make the platform about 4 inches high, carpet it, and add pillows for comfort.

You can build a raised platform with two-by-fours and 3/4-inch plywood. Cover the platform with low-pile carpeting in a neutral color. For a block area, do not put any padding other than carpeting on the platform because building with blocks requires a firm surface. The blocks should be stored on an adjoining shelf. Put a container of toy cars on the shelf, too. You can also paint a small roadway on the platform as shown below.

Create a general-use raised platform with as many as three 12-inch deep, 4-inch high carpeted steps leading up to it. Make the first step a movable riser. (See Movable Risers below for suggestions on use.) The raised platform is an ideal space for young infants less than fourteen months old; they can crawl up the steps, lie on them to play with toys, and crawl to the top and roll down without hurting

Illustration by Paul Lee from Louis Torelli's design

themselves. Older infants and toddlers need more challenges. For those children you can make the steps 8 inches deep.

Playpits

Playpits can be built into lofts, raised platforms, or the floor of the room. The playpits provide a safe haven for infants, a defined space for play, and a sensory experience when filled with rubber balls or other soft objects.

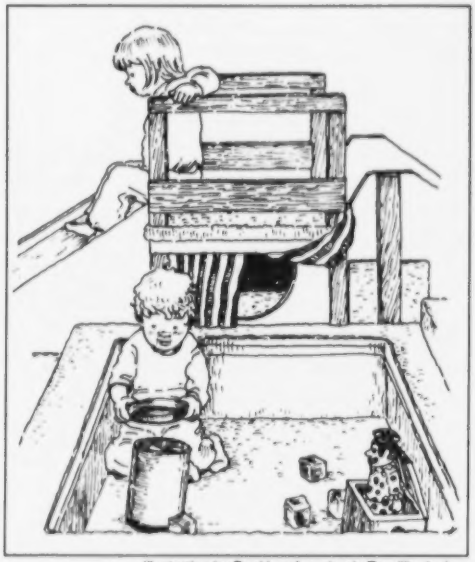


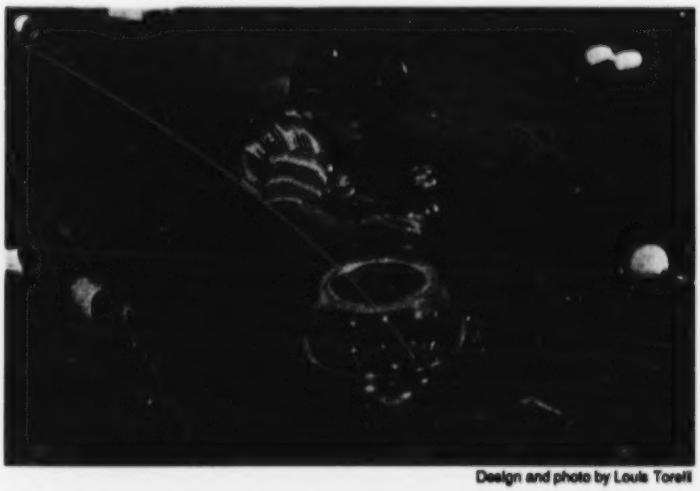
Illustration by Paul Lee from Louis Torelli's design

Movable Risers

Use carpeted risers of various heights to create different levels. Two risers placed at right angles in a corner create a playpit. The first step of a platform can be placed on top of the second step (which is then 8 inches high) to make a cruising bar. Toddlers love to jump off risers and use them as balance beams. Risers can also be used to separate activity areas.

Furniture

A couch or overstuffed chair can become a second level. Use a portable ramp; put a flat mat under the floor end, anchor the top under a couch cushion, and place a pillow on the floor end to hold the ramp down. You can also put a small portable staircase with two or three steps next to the couch or chair. A mobile infant or toddler can use the staircase to climb up to the arm of the furniture.



Design and photo by Louis Torelli

Rest and Sleeping Areas

Infants and toddlers in child care should be able to rest or sleep when they are tired. An infant who wakes up often during the night may need more sleep the following day. A toddler just getting over the flu may need two naps instead of the usual one. The environment should have places where children can relax and a place where they can take a nap with their own bedding whenever they are sleepy.

Rest and sleep should be planned for differently. Infants and toddlers often rest

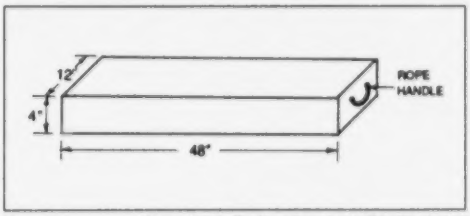


Figure 6 Illustration by Paul Lee from Louis Torelli's design

by playing quietly or just lying down and gazing. Rest does not require as much protection as sleep. A young child can rest while he or she looks at a book or watches others play quietly.

Sleep is different, requiring a secluded spot away from noise, movement, and stimulation. Set the sleeping area apart from the noisy space. When staff are available to monitor the children, the best arrangement is to have a separate room for sleeping.

Rest Areas

The children will not all get tired at the same time, and some will want to take only a short break but not sleep. That means there must be space available for rest throughout the day. A tired child needs to be able to go to a quiet spot at any time. An overwhelmed child needs to be able to retreat. Sometimes a child will need to climb into your arms in a quiet place. Children like to relax and rest even when they do not feel like sleeping.

Good resting places include armchairs, rocking chairs, water beds, pits, quiet decks or lofts, carpeted barrels, couches, pillows, low mattresses, and hammocks. Beanbag chairs hold infants well. Foam chairs or couches that open into mats take up little space. Be sure the adult-sized furniture is comfortable for caregivers. If a couch or chair does not feel good to you, you will not sit there. If you do not sit there, the children cannot crawl onto your lap when they need to.

Set up quiet places on the edge of the playroom for resting. These places may be window seats, small carpeted platforms, soft enclosed areas—even flat stair landings or a pile of cushions collected in a quiet spot will work. Adding pillows, blankets, and soft toys to a carpeted platform can make it an ideal resting place. Pillows and cushions help screen out noise and other stimulation. Keep the colors of the pillows neutral and soft; avoid bright colors. Everything about a quiet spot should be restful.

A place to be alone. You can set up small private areas around the room. The option shown below is very easy to make. A second option is to put a canopy or small parachute over a loft to create a tentlike space.

Photo by Sheila Signer

Photo by Sheila Signer

Hammocks make good private spaces and are cozy places to cuddle with a caregiver. Although they swing, hammocks are safer than rockers. Hammocks can hold infants or toddlers and feel comforting. Also, hammocks can be put up or taken down easily, thus saving space. A double width, all-cloth hammock is the best.

Use of the couch. A secondhand couch can provide comfort for both infants and caregivers. Two caregivers can sit on a couch with one or two children each. Choose a couch for caregiver comfort and add pillows to make infants and toddlers cozy.

The couch can be used for resting, climbing, or as a walking rail for cruisers. Make sure the cover fabric is soft, middle-toned, and easy to clean. A removable, washable cotton slipcover is a good choice. Another low-cost option is a fabric "throw," a large square of material you can drape over the couch. Fabric throws with foam backing will stay in place as you and the children use the couch. A throw is easy to take off, wash, and put back on. The sofa is like a welcoming grandparent. It provides an ideal place for infants, toddlers, and caregivers to relax.

Sleeping Areas

The napping space must feel safe and secure. It should be like the bedroom in a house. Napping places must be far away from large-motor activities and preferably should have limited access to keep traffic down. The area should also be shaded. Use a dimmer switch on the lights and turn the lights down low or off. The fewer sleepers in an area, the fewer interruptions in sleep there will be. Include some plants and soundless hanging mobiles in the area for the children to look at.

Scale the furnishings to the size of the children. Have mats, cots, or cribs that will feel cozy and comfortable. Each infant and toddler should have his or her own spot to sleep. Port-a-cribs save space but are not very sturdy. Cots made to stack and store or mats work well for toddlers. When covered with a blanket, the cots are comfortable.

If the sleeping area is part of a large room, set it off from activity areas with a divider that is at least 4 feet high. Use fabric banners hung from the ceiling to act

as soft walls. A corner works best because you already have two walls. Use lots of fabrics—cushions, pillows, blankets, quilts—to absorb sound. Put up wall hangings, but keep colors and patterns neutral and low-key.

Storage for bedding has to be accessible to you but out of the children's reach. The best storage has compartments, each labeled with a child's name and big enough for the child's blanket, favorite toy, and sheet.

When you have finished designing your rest and sleep areas, look at them and ask yourself: Is there anything else I can do to make these areas feel peaceful, cozy, safe, and relaxing?

Toileting, Washing Up, Feeding, and Food Preparation Areas

Feeding and toileting areas must be clean, bright, and convenient for you and the children. That means the environment has to be easy to clean and easy to work in, and the equipment should be scaled so that picking up, bending over, and reaching are kept to a minimum. Well-arranged food and toileting areas make your job as caregiver easier.

Toileting Area

An important activity, toileting is something children learn to do for themselves in time. How you set up the space for diapering and toileting will make that learning easy or difficult.

Store all the diapers you need nearby. Also have nearby a foot-operated wastebasket lined with a plastic liner for easy disposal. Put the wastebasket under the diaper-changing surface, behind a door, or on a shelf next to the diaper-changing area. A diapering surface about 36 inches high should be convenient for you. Making the surface easy to wash will help you keep it germ free.

If you use diaper table paper, have the roll at the end of the changing surface so you can easily throw away an old piece or get out a new one. The whole diapering setup needs to be close to a sink and separate from the food preparation area.

If your center has a bathroom with very low toilets, you can use those for the toddlers. If not, set up a "potty area," also away from the food area, in a well-ventilated place near a toilet and warm running water. The area must be easily accessible to toddlers.

You can also set up the potties in or near a regular bathroom. You will need toilet paper, paper towels, liquid soap, and handwashing facilities nearby. If toddlers use a regular bathroom, they must have a caregiver with them. The bathroom should be out of bounds or locked when not in use to keep toddlers from playing in there.

Provide more than one potty. Two or three toddlers can sit on potties at the same time. The children can interact and learn from each other.

The toileting area should be cheerful. Put pictures on the wall and use some color to make the area bright. Make it a special place in which children know they are doing something valuable and important.

Washing Up Area

An ideal setting will have two or more low sinks with warm running water where toddlers can wash up. If you have standard sinks, use sturdy stepping stools. Make sure you can control the water temperature. A single spigot which blends warm and cold water works well. If there are two faucets, you will need to plug and partially fill the sink for washing up. (You must drain the sink and partially fill it again for each child who needs to wash up.) You will have to watch the children; a toddler will turn the handles and may make the water too hot. The best way to control water temperature is to install temperature

control devices on the hot water heater or on the pipes leading to the sink. Some places have only cold water, which is safe but can be uncomfortable to use.

If you do not have a sink, use plastic tubs. Dishpan-sized tubs are good. You will have to empty, clean, and refill the tub for each child. When filled with 3 inches of water, the tubs are steady. Set them on a low surface so toddlers can get their hands in easily; have soap nearby and put a paper towel holder within the children's reach. Providing an individual washcloth for each child is another way to handle washing up.

Washing up is an important activity, so avoid rushing the children. Set things up so children can feel the soap, see the bubbles, and watch their hands.

Eating and Feeding Area

This area must meet your needs and those of the children. You need accessible storage and comfortable, easy-to-clean surfaces. The children need low, comfortable places to eat. In order to sit with the children while they eat, arrange a place for you to sit too.

Low tables for up to four children work well and can be used for arts and crafts activities at other times. Consider tables that stack or fold out from the wall. You can use them for mealtimes, then store them away to enlarge the play space. Also consider using water tables or troughs with their covers on for food tables.

Very young infants should be fed one at a time while being held by the caregiver. For somewhat older infants, a small group is good. You have several options for feeding infants. One type of seat for infants over six months old clips onto a table rim, but for that you need an adult-sized table. High chairs with a wide base are safe and allow for good one-to-one contact between infant and caregiver. High chairs take up floor space, but they can be stored, especially collapsible ones, when not in use.

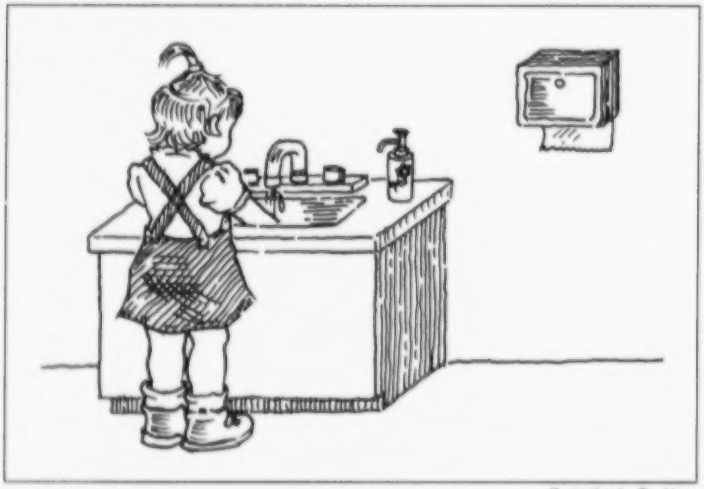


Illustration by Paul Lee

Another option is to use special child-sized feeding tables.

For mobile and older infants, use regular child-sized tables and chairs. A table for infants from twelve to eighteen months of age should be about 12 to 14 inches high. Toddlers need a table 16 to 18 inches high at which they can sit and eat as well as stand and do messy play. When toddlers are seated, their feet should touch the ground. The table should be below chest height.

Toddlers will enjoy sitting in groups of two to four at small tables. Serve the food family style unless toddlers bring their own lunches. When children and adults eat together, they can have a social time. Natural wood tables sealed with a high-gloss coating are easy to clean. Sturdy chairs are best. Options include cube-type chairs with no legs, which take up a lot of space but when turned over can be used for other purposes, or stackable metal or plastic chairs, which also support a more flexible environment.

Food Preparation Area

Before you set up the food preparation area, consider these five general guidelines:

1. Make sure that food and diapering areas are completely separate. That is one of the first requirements when setting up your environment. Change diapers at a location that has its own sink. In a one-room center, make the food preparation area easy to reach, near a sink but away from the diaper-changing area. The floor in this area has to be nonskid and uncarpeted so it is easy to clean. Provide adequate storage and shelving for bottle warmers, bibs, cups, and plates. Make the area cheerful by putting up pictures of food and the names of the foods where the children can see them. If you have a separate kitchen, you may want to install a gate in the doorway. A gate that locks in place lets you get in to prepare the food but keeps wandering toddlers out.
2. Lock up all health hazards, such as bleach, cleaning supplies, and first-aid supplies, that are in low cupboards. A better option is to store hazardous items in cupboards over 4 feet high.
3. Make sure the floors are not slippery. Use low-gloss wax, fill in any cracks between tiles, or put in some kind of nonskid flooring. (Do not have carpets in the food preparation area.)
4. Have adults-only work areas and storage spaces that are too high for children to reach.
5. Make sure all surfaces and equipment are easy to clean. Knowing that cleaning up is easy encourages you to let toddlers learn to eat by themselves, even if they do make a mess. Easy-to-clean surfaces and equipment also reduce the time you need to spend cleaning. If the eating area doubles for messy play, you might have "messy trays" stacked on a shelf nearby. These plastic trays have a lip to keep such things as shaving cream and finger paints in the tray.

Storage and Shelves

Storage is the caregiver's strong silent partner in a smoothly run child care program. The ease and efficiency that result from having well-organized storage make building storage into your environmental planning well worthwhile.

Wise Use of Storage

Keep items and materials near the area in which they are needed, for example, diapering materials near the changing area or the potties, playthings in the play area.

Make stored items easy to reach or get to. If they are hard to reach, they require extra effort to bring out. The same goes for the children's playthings.

Label all storage shelves and bins with both the words and pictures of the items from toy catalogs. You can protect the pictures by covering them with clear contact paper.

Use see-through containers so that toddlers can see what is inside without dumping everything out. Another option is to use tray containers with handles, then toddlers can both see into the trays and carry them easily. For small items, use containers that are easy for toddlers to handle so they can carry the items from the shelf to a play surface without your help and without spilling the toys all over.

Caregivers' Storage

Caregivers' storage should be designed so it will not cut into infants' and toddlers' movements or explorations. Build open or closed shelves on any wall over 4 feet high. The overhead shelving can be anywhere in the room and makes good use of empty wall space.

High shelves can be used for additional toys and equipment. You will want to store some toys so you can bring out the "new" and store the "old" playthings every few months. Being out of sight for a

while is what makes toys new. Use closed storage to rotate toys and to hold equipment you do not use all the time: records, cassette tapes, extra art materials, and paper. Equipment you need often for changing, cooking, and playing can go on high open shelves where you can easily see and reach the items.

A large locked closet or cabinet is helpful for storing bulk supplies. Caregivers also need to store personal belongings out of the children's reach. Ideally, an area should be set aside for caregivers only.

Changing and Food Area Storage

The changing area must have handy storage, with such supplies as diapers and ointments for diaper rash placed out of reach of infants and toddlers. However, you must be able to reach the supplies easily without leaving the child you are changing.

If the parents supply the diapers, you need to store each child's diaper bag nearby so you can reach it from the changing table or pick it up on the way. In either case, convenience is vital; bags cannot be piled four deep or be put one behind the other so that you cannot see all of them. Make sure the child's name is written in big letters on the bag or on a large plastic tag.

The food area must have convenient storage, too. Items must be easy for you to get quickly, but they must be out of infants' and toddlers' reach. Open-shelf storage (over 4 feet high) with a small lip meets those needs. The children can see the items but cannot reach them. You can see what you need and reach it easily. Make sure the shelves are not too deep because deep shelves hide things.

Child-sized Storage

Being able to see playthings is what invites children to play. Anita Olds, an expert on infant environments, says, "Well-organized storage and display of materials, which enable children to see what is available, where it belongs, and where to use it, are critical to the success of most activities."

The size and shape of shelves really matter. Those that are too long and hold too many items can confuse a toddler. Those with compartments, shutters, and drawers frustrate younger infants.

Simple, custom-built units can be cheaper than shelving available for purchase. Decide what you need, then design it. If one of the parents has carpentry skills, perhaps you can get the parent to make the size shelves you need to fit your space.

Shelves that are not well designed can encourage a child to try climbing them. To discourage climbing, make the second shelf high enough so that it is hard to pull up on. This shelf should be as high as the midpoint between the toddler's elbow and shoulder. Put the next shelf 10 to 12 inches higher. Use vertical dividers on the bottom shelf. If they are wide apart, a toddler can climb in and curl up, making the shelving something to explore. Dividers on the upper shelves can go close together to discourage climbing between them.

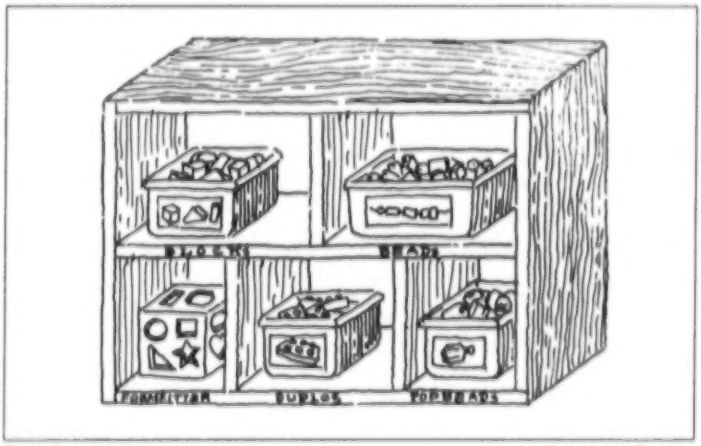


Figure 7 Illustration by Paul Lee

Put small shelves in playpits and on decks and platforms. Toys that children use there can be stored on those shelves.

Use natural wood for shelving. The wood shows off the toys and lets infants and toddlers see and feel a natural material. Pine is inexpensive and works well. A small shelf will hold 12 or so toys. For infants, make the shelf 28 inches wide by 20 inches high by 10 inches deep, with two levels. Shelves for toddlers can be as high as 30 inches and have three levels—a bottom, middle, and top shelf. The top shelf can be used for toys, too.

Wooden cubbies or plastic bins, good for infants' and toddlers' belongings, must be low and small. For children's outside wear, use hooks placed low enough for toddlers to reach on their own.

Maintaining Order

Creative use of storage is vital for maintaining order. Be creative about storage ideas. Use netting hung on the wall above 4 feet to store balls, foam pieces, and extra pillows. Zippered pillowcases or pillow covers labeled with a laundry marker can be used to store dress-up clothes, pieces of fabric, painting aprons, and other soft items.

Photo by Sheila Signer

Use wheeled carts, toy boxes, or milk crates to gather up toys. Then put the toys back on the shelves where they belong. Toys that do not have storage space may get lost or broken.

Involve the children. Give toddlers empty buckets or other small containers labeled with pictures of lego-type blocks, toy cars, or other small items. Encourage the children to collect the things that go in their bucket.

Outdoor Space

Make the outdoor area easy to get to, or it will not be used. Creating environmental variety is as important outside as it is inside. Variety in the outdoor area can be in textures, surfaces, movement, equipment, and slopes.

Here are some of the things you will want to have in the outside play area:

trees	swings
ramps	slides
dirt	shade
tunnels	water
climbers	blankets
bushes	grass
sand	hills
boulders	wheel toys

Ideally, a playroom will open directly to an outside play area. If you have no outside play area, you will have to improvise. Use local parks, have stroller parades, and take nature walks in the neighborhood.

If you do have an outdoor area, think of it as an infant/toddler park. The area will be different from an outdoor area for preschoolers. Because children from young infancy to three years of age will all play there, the area needs to meet many different developmental needs. A three-month-old needs to be in a protected area that allows the child to look around. A ten-month-old will need space to crawl

and things to hold on to while trying to walk. A toddler will be moving over large parts of the yard quickly. Ask yourself: How can this space meet all those needs?

Grass or Soft Ground Cover

You need a place to spread blankets and to let crawlers roam—a soft grassy area is ideal. A lawn encourages toddlers to roll, tumble, and relax. The grass needs to be inspected regularly because young children will put anything they find in their mouths. You can use different kinds of grasses for variety or cut the grass to different lengths. In some places you can plant mosses or special grasses to provide a thick, springy surface. Check with your local county agricultural agent or a local nursery to find out what natural ground covers grow well in your area. Remember the ground cover will get a lot of wear, so it has to be tough.

Use large, round boulders for variety or plant shrubs to make a miniature forest. Infants and toddlers can wander in the "trees." Logs and benches on the grass give young children something to climb on and caregivers a place to sit or lean against while they watch or play with the children.

Protection from Hazards

Outdoor play has to be safe, but the outdoors can be dangerous. To keep infants and toddlers away from passing cars and bicycles, you will need to fence the outside area. But think also about the dangers inside the yard, and remove any hazards. For example, all the plants in the area must be safe. People who sell plants usually know only the major poisonous ones. They do not know what will happen if an infant chews the leaf of an ordinary shrub. You need to know. To find out, contact your local poison control center. Look in the phone book or call your local hospital for the number.

Other hazards include gravel, small rocks, wild mushrooms growing on old wood, and uncovered sand areas. Cats treat any sand as a giant litter box. If you have a sandbox or sand area, cover it when you are not outside. You can use a tarpaulin or a wooden frame covered with mesh wire. Store the cover outside the play area during playtimes.

Photo by Sheila Signer

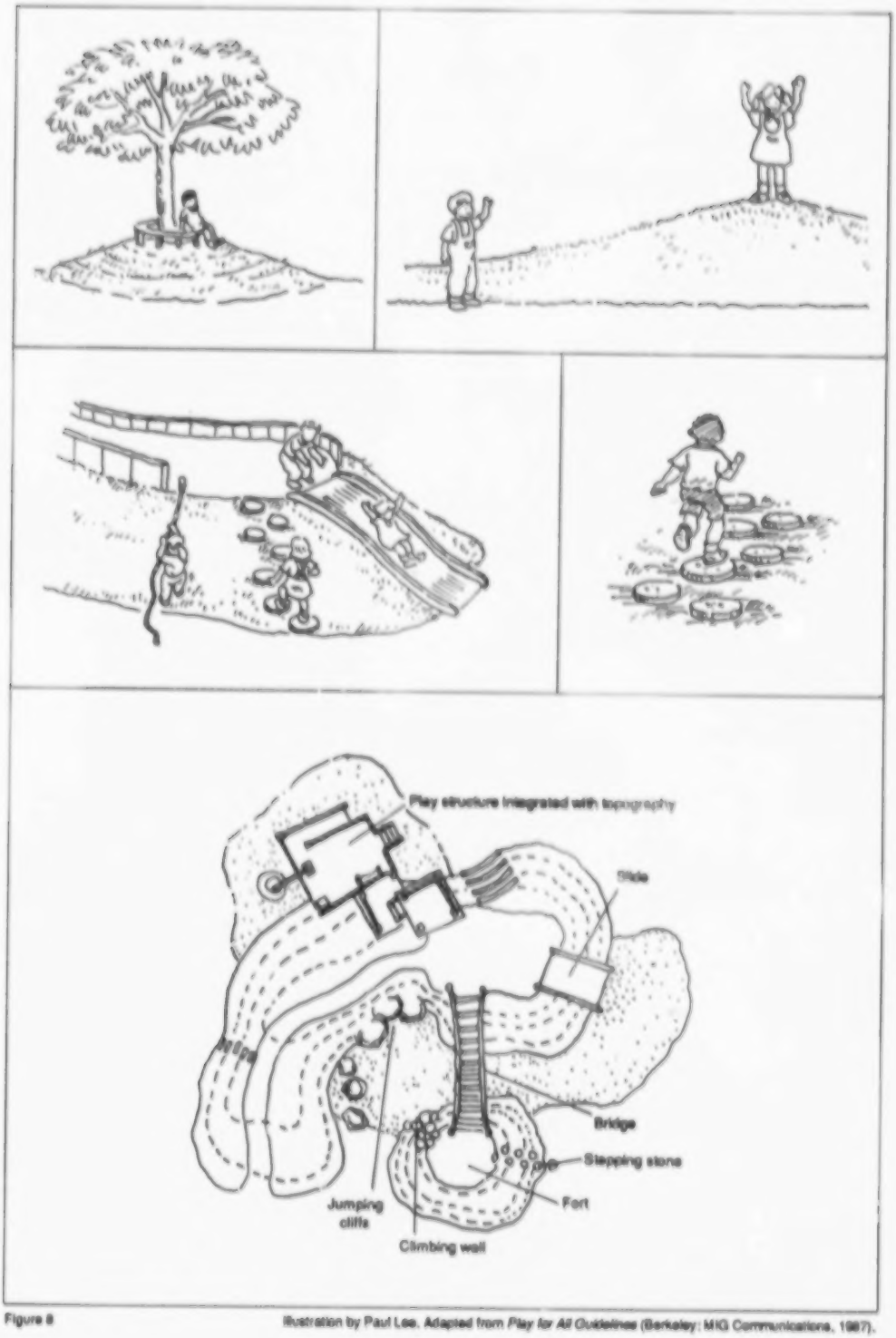


Figure 8

Illustration by Paul Lee. Adapted from *Play for All Guidelines* (Berkeley: MIG Communications, 1987).

Barriers and Pathways

Pathways and barriers direct traffic outside just as they do inside. Before you put down pathways, think about the yard. Make a list of every activity you want to have, then decide how much space you can allow for each. Surround the infant area with developmental barriers, such as those described in the Glossary on pages 58–59. Place developmental barriers between the sand and grass so infants too young for sand will be forced to stay on the grass.

You can use low rocks or wooden walls as barriers. You might also use poles, kiln-dried wood, or peeler logs. (Check to see that they have not been treated with hazardous substances and are free of splinters.) Other options include a slatted walkway of wood: a wooden platform about 18 inches wide and 3 inches high, with some space between the slats. Young crawlers usually will not go over the walkway, but toddlers will. A barrier of shrubs also stops crawlers, whereas toddlers will push through it.

Surfaces for Rolling Toys

Toddlers need a smooth surface (concrete or blacktop) for wheeled toys. Trucks, tricycles, low-riding vehicles, and wagons for pulling all have to move easily over the ground. Try to include doll strollers, miniature shopping carts, and pull toys in your collection.

If you can, design a pathway that has grass on both sides to provide a smooth place to ride without covering too much of the area with a hard surface. A circular traffic pathway wide enough for two bikes and that curves around the play yard is ideal. The caregiver needs to be able to see the entire pathway from any place in the yard. The path has to work for strollers, too, so you can use it to push infants in strollers around the yard.

Texture Walks or Paths

A texture walk is a regular pathway or a special area, with various surfaces, whose purpose is to give toddlers variety and practice with different materials. For texture walks, you can use almost anything: dirt, wood rounds, patterned rock, bricks, sanded planks, half-logs, cobblestones, sand, bark, stepping stones, or rubberized studded tiles. Make the path about 2 feet wide and each section about 4 feet long. You can also change the railings by using chains, rope, pickets, poles, or plastic piping.

For crawlers, avoid using anything that is too rough. Use sanded wood or wood rounds. Try grass of different colors or other ground covers, making sure they are not poisonous.

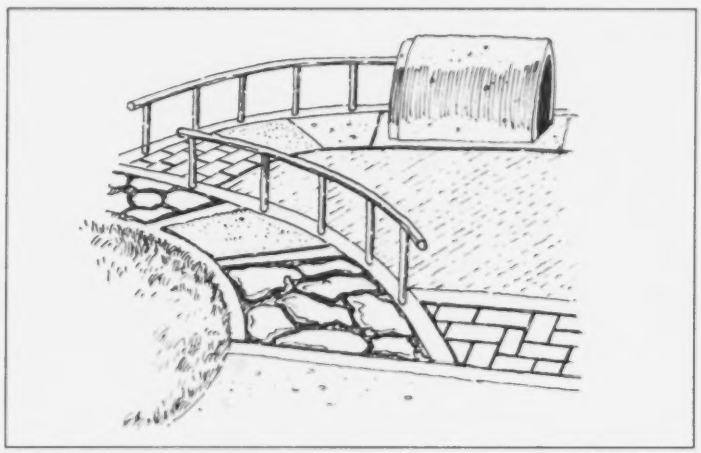


Figure 9 Illustration by Paul Lee

Use of Nature for Learning

You have a wonderful ally in Mother Nature, an old and wise teacher. Everyone learns from nature. Therefore, include as much natural variety as you can.

If you are starting from scratch on a play yard, plant some trees that lose their leaves so the children can see them fall and get blown about by the wind. Also plant some trees or shrubs that stay green

all year, and try to have some that blossom in the spring. When you plant, think about the seasons: What plants will show the seasons? Try to plant something that smells wonderful (and can be safely chewed).

Consider creating sunny and shaded areas. Shade both protects children and teaches children about temperature. Being in an area shaded by shrubs feels different from being in a sunny place.

You may want to have some raised garden beds. These are made from wood, about 8 to 12 inches high, and filled with dirt. Toddlers can help you plant flowers or vegetables, dig for worms, and watch ladybugs.

Wind socks and wind chimes hung outside help children learn about the wind. Banners or colored cloth streamers move in a breeze, too.

Large flat boulders let infants and toddlers feel stone. They can climb over the rocks, look at their shapes, and lean against their solid sides. If you can put in a trough to hold water, do so, using wood, metal, or stone. Drip water from a hose into the trough.

Hills teach children about balance and going up and down. Hills hide some things, show other things. If you have a hill, you are lucky. If not, consider "building" and seeding a small hill with grass. As the children watch the grass grow, they learn more about nature.

Covered Area for Rain and Sun

Infants and toddlers need to play outside year-round. When it rains, the children need a sheltered place to play. In the summer sun, they need a cool place to play. Before you plan for shade, think about the direction of the sun in relation to the play yard. What areas are sunny when you are outdoors? Do you already have a shady area?

Some centers have awnings on the main building. Areas containing any metal play equipment need to be protected from too much sun. Slides in open, sunny areas should face north to reduce direct sun contact, keeping the surfaces from becoming too hot. You can use waterproof tarpaulins to create shade. Another possibility is a lath house. A lath is a thin, flat piece of wood. A lath structure, created by putting laths a few inches apart on a wooden frame, makes a shady spot. You can attach the lath house to an awning on a storage shed.

A playhouse with a roof is another option. You can build one in the middle of the yard. The playhouse can double as a storage shed for riding toys, planks, parachutes, wagons, balls, and sand or water toys. If the yard is right next to the child care center, put up a lean-to using the main outside wall. Add two walls and a sloping roof, and you have a covered area.

Messy Activities

A wooden deck or flooring, ideal for outside messy play, also drains water fast. Thus a deck will be dry enough for play sooner than wet grass. If the deck is high, it gives young children a chance to see things from a higher place.

Because messes are easier to clean up outside, plan to do messy play activities outdoors. Simply wash away traces of paint or clay with a hose. On sunny days, painting or working with clay or playdough is better done in the shade; the sun dries things out too fast. But the sun is ideal for water play. You can use a small plastic pool or even buckets and basins filled with water. Add some plastic cups and spoons for children to play with.

Toddlers like to use large pieces of chalk to mark smooth cement. You can help children make "roads" for their

Photo by Sheila Signer

riding toys. Children can also "paint" their cars with colored water and wash them with soapy water and sponges.

Books, Music, and Dramatic Play

The outdoors can be a perfect theater. The children can sit on the grass to sing or play music, sprawl on a hillside to watch someone perform, or curl up with you in the shade to hear a story or look at a book. Nature books are excellent for reading outside.

Playing dress-up games outdoors is a special treat. The fireman can have a real hose. The shopper can push a shopping cart. The car driver can race around orange safety cones. The police officer can stop traffic with a sign and a whistle.

You may have to bring out equipment for these activities. Because most equipment cannot be left outside, you may want to design a large cart on wheels to carry the equipment or install outdoor storage cabinets. Make the sides of the cart low enough so toddlers can put things back in the cart at clean-up time.

Low-cost Outdoor Equipment

Low-cost equipment includes benches, plastic milk crates, wide, sanded boards, and inflatables, such as inner tubes, mattresses, big balls, small balls, and tires. The boards should be short enough for toddlers to lift and carry or drag. Children can also build with the boards and the plastic milk crates. Toddlers like to stack, put things in, push and pull, and sit in the milk crates.

You can bury tires sideways so a half-circle sticks up and works as a small tunnel or a place to sit on or lean against. Make a row of half-circles to form a pathway railing for cruisers. If your area is sunny, paint the tires a light color to cut down on the heat they absorb. Painting the inside of tires a light color will discourage spiders from spinning webs there.

If you have a hill, you can build an inexpensive slide right in it. This is the safest possible kind of slide because there is nowhere to fall. Use sanded dead trees as climbers; make sure they are firm so they will not shift when children pull up on them or climb over them. You can have several kinds of swings, including porch swings and those with baby seats and cradles. And do not forget hammocks, which make a great place for you and a child to relax.

Practical Tips

Air, Light, and Heating

These background workhorses are vital to the environment yet easily overlooked. Good heat is essential to the health and comfort of a child care setting. The heat should be adjustable and adequate. A moderately low setting is best. When the room is too warm, both you and the children may feel lifeless. The furnace also needs to be maintained and checked regularly.

Fresh air is essential and has to move around enough so that crawling infants get some but are not chilled. One way to ensure you all get enough healthful fresh air is to go outside several times a day. Another fresh air resource is open windows or sliding glass doors with screens. If the air is too dry, you may need a humidifier.

Lighting is crucial to health. All people need some natural light to regulate their bodily functions. Light is also a major source of stimulation for the senses. Research on people who spend hours indoors each day, in front of televisions or under fluorescent lights, shows that too little natural light is unhealthy.

But all indoor settings need some artificial lighting, and numerous options are available. The healthiest course is to copy nature. Full-spectrum lighting is close to natural sunlight. Use full-spectrum bulbs or a mixture of fluorescent and incandescent lights to make up full-spectrum lighting. (Incandescent lights are the ordinary light bulbs you use at home.)

Photo by Sheila Signer

For best results, use a variety of lighting: natural, incandescent, fluorescent, focused, and indirect. Use full-spectrum bulbs to replace fluorescent bulbs, which alone are not healthful. Connect lights to adjustable dimmers so you can easily change the brightness. Mix lighting styles too. Use lamps, overhead built-in lights, windows, skylights, open doors with screens, and French doors. Different styles create different effects. For example, small local lights give a warm, cozy feeling. Built-in overheads are cooler but light an entire room.

Boxes and Barrels

A cardboard appliance container or barrel can be lined with fabric or low-pile carpet. Cut out windows and a door before

lining the container. Then put an activity box, a few toys, or a texture quilt inside. This can be a private space for one child or a playing space for two.

A few large cartons can make a temporary boundary. This "instant wall" will create two smaller playing spaces. Cut out doors so children can go in one side and out the other, or use two or three cartons to create a place for dramatic play. Smaller boxes can be painted to look like stoves and refrigerators. Larger boxes form the walls; the insides of the boxes can become other rooms or closets for a playhouse.

Turn a barrel or box on its side, open both ends, and line with a variety of fabrics. Using a nontoxic glue, paste down any loose edges. You have created a crawling tunnel with many textures.

Home improvement stores are good sources of materials. They often give away old wallpaper sample books, which are full of different patterns, textures, and colors. The stores also have sample books of fabrics.

Carpets

Use a low-pile carpet. It is easier to clean and does not hide small toys or dirt. Get a hypoallergenic carpet, if possible. If you buy new carpeting, look for antimicrobial carpeting, which reduces germs in the environment. (That carpeting costs about a dollar more per yard than standard carpeting.) When you choose colors, avoid really dark or very light shades, which both show dirt more than a neutral tone. Also avoid odd colors or those that are too bright.

Rug manufacturers or outlets and large fabric stores often are good sources of remnants. Those places usually have small pieces of carpet that will cover one area.

Carpeted platforms of different heights can challenge crawling infants. Use different textures to create different feelings. Make a carpeted ramp or build up carpeted levels around a waterbed or playpit.

Ceilings

Use the ceiling to hang banners, mobiles, posters, and wind chimes. If the ceiling is strong enough, you can hang grids made from wooden slats. Adjust the grids to different heights, then hang playthings from them. A simple alternative is to put a single beam across the narrowest point in the room. In a square room, this will be a corner. Hang things for the children to play with or look at.

Changeable Environment

A changeable environment is easy to rearrange. Children from birth to three years of age change so much themselves that their environment has to keep up with them.

The empty space in the center of the room creates a changeable environment that is like a stage set that you can alter as you need to. Use simple, low-cost, lightweight equipment to change the setting: cardboard boxes, plastic laundry baskets, air mattresses, pillows, mats, toys, large balls, plastic milk crates, and piles of pillows.

You can also change the environment by rotating toys in and out of storage. Store and rotate toys on a regular schedule, maybe weekly or once a month.

Cleanliness

Cleanliness is essential in a child care setting. A clean environment encourages safety, health, convenience, and harmony. The secret to cleanliness in a child care setting is to make cleaning easy yet thorough and to clean throughout the day. An easy-to-clean environment means you can spend your best energy with the children, not in cleaning up after them.

Look at everything you are thinking of putting in the setting. Can each item be cleaned thoroughly and easily? Would something else that would work as well be easier to clean?

To make cleaning easy, use washable covers on furniture and pillows and have easy-to-wipe surfaces. Buy equipment that is simply designed. A food blender with one on-off button is easier to keep clean than one that looks like a jet control panel. A climber with simple, smooth pieces is better than one with lots of small breakable parts.

Feeding and diapering areas need special attention. They get the dirtiest and have to be kept the cleanest.

Cushions

Use closed-cell foam for pillows. It does not absorb moisture so will not grow germs, and the foam is easy to clean. Make or buy removable covers with zippers or Velcro for fast, easy washing. Mix the colors, sizes, and shapes as much as possible. You can also make a set of blocks using pieces of foam covered with various kinds of materials.

Floor Surfaces

Provide a smooth surface for toddlers' riding toys. Use low-pile carpets in small-muscle areas. Make sure that rug edges are firmly attached to the floor. Create texture walks using mats of thick plastic with various textures (ribs, small ridges, and bumps). Use linoleum or other easy-to-clean floor coverings in feeding, food preparation, diaper changing, and messy activity areas.

Janitorial Help

Draw up a clear, well-labeled floor plan for the custodians or others who help clean. Explain why things are arranged the way they are so the janitors will not leave all the furniture in one corner after they have cleaned the room.

Light and Texture Variation

Introduce variety in sources of light. Build platforms at windows for natural light. Use full-spectrum bulbs, which are like sunshine. Employ general, task specific, floor, wall, ceiling, and desk lighting.

Wall-mounted light fixtures reflect light, washing it toward the ceiling and down the wall for a soft look. Wall lights give you the feeling that you are surrounded by light, as though you were outside in nature.

Use mirrors to add variety and light. Plexiglas mirrors are the safest and can be ordered cut to any size. Mirrors should be large enough (about 30 inches to 40 inches high and 40 inches wide) so two children can see themselves from head to toe. This action supports children's developing sense of self. Put mirror tiles on ceilings and shelves, over cribs or changing tables, and out of reach of the children.

Vary the textures on floors, walls, and furniture. When you choose floor coverings, select a variety: smooth vinyl,

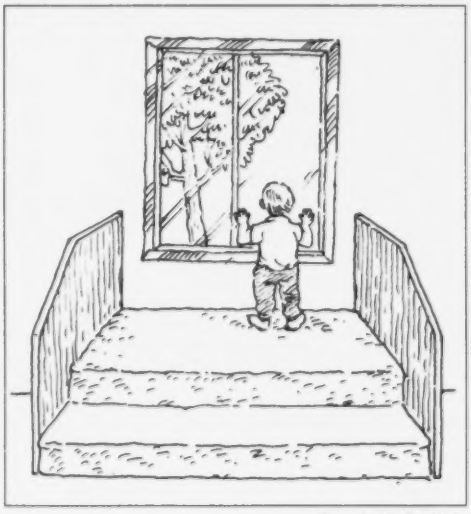


Illustration by Paul Lee

smooth low-pile rugs, textured low-pile rugs, and so on. Place heavy plastic mats with different textures over the carpets. You can add textures by changing what is on the walls. Create texture quilts for infants, using velvets, satins, and cottons in a variety of colors. Put cellophane under some of the quilt sections so they make a noise when pressed. Also choose different fabrics and colors for the small throw pillows. Add variety wherever you can.

Limited Space

When a small area needs to meet the varied needs of infants and toddlers, you have the challenge of limited space. Strategies for designing a limited space include utilizing:

- A changeable environment
- Lightweight, easy-to-change boundaries
- Multiuse, multipurpose equipment
- Optimal storage in the creative use of space

Tables that serve two or three purposes, such as those of feeding, art play, and messy activities, are examples of multipurpose equipment. Another example is covered foam shapes that serve as boundaries and as seats for caregivers.

Using neglected space is a great strategy for a small area. For example, the space from the ceiling down about 6 feet often goes unused. Add visual stimulation with banners, mobiles, canopies, kites, and skylights.

Designing a child care setting with limited space is like taking a long trip in a small boat. You have to plan everything ahead of time to use the small space you have in the best possible way.

Overstimulation

To soften a noisy area (such as the large-motor area), cover the walls up to 2 feet high with inside-outside carpeting. Use plenty of soft material that absorbs sound for the furnishings and coverings. Avoid too much light, especially harsh artificial light. Allow as much natural light as possible.

To cut down on stimulation, consider the following:

- Are there places for both quiet and noisy activities?
- Are those areas far enough apart?
- Is it hard to think clearly because of the noise?
- Are parts of the room too cluttered or confusing to look at?

Suggested Resources

Books and Articles

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Audiovisuals

Accidents Don't Have to Happen. Evanston, Ill.: Professional Research, Inc., 1986. Videocassette, 16mm film, and super 8mm film, color, 11 minutes. Available in English and Spanish.

Outlines simple, effective measures parents can take to prevent childhood accidents and ensure children's safety.

Available from Professional Research, Inc., 930 Pitner Ave., Evanston, IL 60202; telephone (312) 328-6700.

The Ages of Infancy: Caring for Young, Mobile, and Older Infants. Sacramento: California Department of Education, 1990. Videocassette, color, 25 minutes; printed guide. Videocassette available in English, Spanish, and Chinese (Cantonese).

Divides infancy into three distinct stages of development: the young infant, the mobile infant, and the older infant or toddler. Explores the developmental issues of security, exploration, and security for each age group. Provides specific caregiving guidelines and suggestions for each stage.

Babies in Family Day Care. Ithaca: Cornell University AV Center-C, 1979. 93 Slides, color; sound on cassette; printed guide.

Explores successful caregiving environments for children from three months to five years old in family child care homes. Considers issues such as flexible scheduling for individual children, ways to juggle different activities, and the safety and appropriateness of equipment.

Available from Cornell University AV Center-C, 8 Research Park, Ithaca, NY 14850; telephone (607) 256-2091.

Come In and Play. Ithaca: Cornell University AV Center-C, 1981. 77 Slides, color; sound on cassette; printed script.

Shows how to create a portable, inexpensive, easy-to-make indoor environment for two- to three-year-olds. Gives ideas for providing inexpensive materials in the following learning areas: language development, reading, music, art, active play, and small-muscle and large-muscle development.

Available from Cornell University AV Center-C, 8 Research Park, Ithaca, NY 14850; telephone (607) 256-2091.

Infant Care: An Environment for Growth and Stimulation (Program 4). Tuckahoe, N.Y.: Campus Films Distributors Corp., 1977. Filmstrip, color, 30 minutes total (four programs); sound on cassette; printed guide.

Illustrates how to set up an environment for infant care in a home. Places special emphasis on the use of the floor with young and mobile infants.

Available from Campus Films Distributors Corp., 24 Depot Sq., Tuckahoe, NY 10707; telephone (914) 961-1900.

Space to Grow: Creating a Child Care Environment for Infants and Toddlers. Sacramento: California Department of Education, 1988. Videocassette, color, 22 minutes; printed guide. Videocassette available in English, Spanish, and Chinese (Cantonese).

Presents eight qualities to consider when planning an environment for infants and toddlers: safety, health, comfort, convenience, child size, flexibility, movement, and choice.

Spoonful of Lovin': A Recipe for Happy Children (Program 4). Bloomington, Ind.: Agency for Instructional Television, 1980. Videocassette, color, 30 minutes; trainer's guide.

Presents suggestions for childproofing and arranging learning areas in family child care homes. Emphasizes the development of self-sufficiency and independence in infants and toddlers.

Available from Agency for Instructional Television, Box A, Bloomington, IN 47402; telephone (812) 339-2203.

Spoonful of Lovin': A Good Measure of Safety (Program 5). Bloomington, Ind.: Agency for Instructional Television, 1980. Videocassette, color, 30 minutes; trainer's guide.

Gives an overview of safety considerations in setting up family child care homes for infants and toddlers.

Available from Agency for Instructional Television, Box A, Bloomington, IN 47402; telephone (812) 339-2203.

For further information on most of the audiovisuals listed here, see *Infant/Toddler Caregiving: An Annotated Guide to Media Training Materials* (Sacramento: California Department of Education, 1988). To order California Department of Education materials, see Ordering Information on page ii of this guide.

Glossary of Terms

This section presents terms you will encounter when reading about how to design child care environments for infants and toddlers. Environmental experts believe that paying attention to these terms will clarify the suggestions about how to create an appropriate setting for infants and toddlers. Some of the terms, such as accessibility, order, and organization, will not be new to you. Others, such as mini-environments, developmental barriers, and sensory impact, might be.

Accessibility. Accessibility means having clear pathways and easy-to-reach materials. For the caregiver, accessibility means convenience, an environment that is easy to work in. For young children, accessibility means being able to get to materials and equipment and provides a feeling of control.

The key to accessibility is good use of the floor. An open space lets young children see and get to materials and other areas easily. Visible boundaries that create separate areas also aid accessibility.

For young children, the scale of furnishings and equipment promotes accessibility. Water tables, shelves, toilets, sinks, lofts, steps, and platforms all need to be child-sized so young children can use them independently. Storage also creates accessibility. A good arrangement of materials—in the feeding and eating area, in the playing spaces, at the changing table—ensures accessibility for the children and you.

Aesthetic quality. The overall pleasing effect of an area is its aesthetic quality, which influences caregivers and young children. Some places make people feel good, and they respond happily. This is the response you should seek from the infants and toddlers you serve.

Aesthetically pleasing environments are a blend of various elements: a few soft, warm colors; plants; the sounds of living things; comfortable places; and a feeling of order and harmony.

Most child care facilities have a tight budget. You may be tempted to cut costs on aesthetics, but beauty has real value. The aesthetic quality creates the mood which influences everything that goes on in an environment.

Boundaries. The edges of an activity area are its boundaries. Boundary planning

Design and photo by Louis Torelli

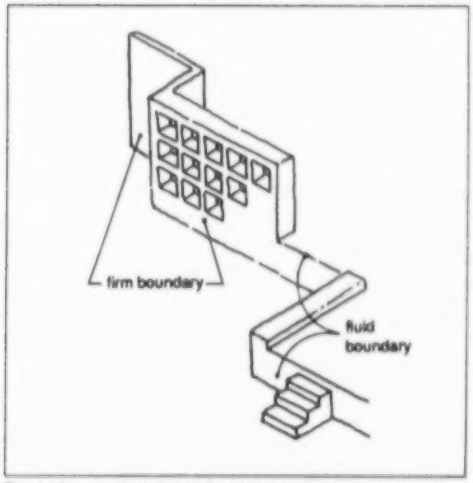

Figure 10 Illustration by Paul Lee based on design by Anita Olds

involves deciding what activities and activity areas you want to have and where to put each one.

Boundaries break up large areas into smaller, child-sized centers that you set up for certain activities. Boundaries give toddlers natural limits and guide their behavior, tending to encourage some behaviors and discourage others.

A boundary must be clear, signaling where an area begins and ends. To give these signals, you can use anything from a bookcase to a line of tape on the floor or rug. Boundaries that also work as places to sit and as playing surfaces do double duty, a plus in a small center.

Boundaries can be permanent: a wall, room divider, playpit or loft with railing, built-in shelf, storage unit, the edge of a rug, heavy furniture, or a counter. A boundary can also be temporary: cushions or foam rectangles, blocks, tables, light pieces of furniture, cardboard boxes, or an upside-down table.

For the major divisions, use permanent boundaries. For quick changes in activity, use temporary boundaries.

Consider these qualities when planning boundaries:

1. Height
2. Visibility (Can you see through or over it?)
3. Mass (Can you move it easily?)

Boundaries that let the children watch others are ideal. That means the boundaries should be only as high and as solid as needed to keep a child safe. You need to see over any dividers into all activity areas.

One way to create boundaries is with color. Using one color or shades of one color for all surfaces, shelves, and dividers in an area creates a simple, obvious boundary. Then you can say, "Oh, the fire truck is in the green area."

Control opportunities. The chances you give young children to make choices about themselves and their activities are control opportunities. The more the children can choose how the environment affects them and they affect it, the more control opportunities they have.

Examples of control opportunities are choices of what to play with, how to play, and where to play. The opportunity for control can also mean choosing to rest instead of play. For instance, being able to get into a private place lets a child control the amount of stimulation he or she is exposed to.

The environment should offer young children as many control opportunities as possible. The choices should include:

- Meeting their own needs
- Developing mastery of certain tasks
- Choosing and controlling materials
- Controlling their own movements

A child who can move freely, change position, create boundaries for himself or herself, and fulfill his or her physical potential feels a great sense of mastery and control.

Developmental barriers. Anything that separates children by making use of their level of development is a developmental

barrier. The barrier works developmentally because the child can cross it when he or she reaches the next stage of development. Thus a toddler will be able to climb over a low carpeted wall that an infant cannot navigate. Developmental barriers separate children with different capabilities but do not cut off the caregiver's view.

Developmental barriers separate younger from older children, so one room or playing area can safely contain children from newborns to toddlers. A low pile of soft pillows can be the developmental barrier. The pillow pile will stop very young infants and even crawlers.

An empty plastic wading pool in which infants can play is another developmental barrier. Blocks, risers, a cardboard box, or a low wall are other kinds of developmental barriers.

Developmental challenges and risks. Physical, emotional, and mental tasks that encourage new skills are developmental challenges. Meeting those challenges means taking some risks. For example, to stand upright, a crawler risks falling. Young children need to be able to take such risks.

However, while they are trying new skills that are right for their development, young children do need to be protected from real harm. Learning to walk means taking some falls. But that means falling on a carpet, a mat, or a floor, not off a ledge. Toddlers especially need safe risks. They need to discover the right balance between risk and safety, challenge and security.

A space for both infants and toddlers should have a variety of physical challenges. Waterbeds, horizontal nets, mats, mattresses, lofts, and wading pools full of covered foam pieces or pillows can all encourage coordination, balance, and climbing skills.

Photo by Sheila Signer

Emotional tone. The general feeling created by a room or area is the emotional tone. But it is not just a feeling; the emotional tone affects behavior. Children learn what activities are acceptable in various settings. They get a feeling for the quietness of the reading area. They seek the climbing equipment when they really want to move.

The emotional tone of an area should match its function. For example, the emotional tone of the rest area should promote a quiet, secure, relaxed feeling.

You create emotional tone with pillows, colors, fabrics, rugs, curtains, wall hangings, banners, plants, aquariums, furniture, pictures, lighting, and arrangement. A soft, warm-colored space with lots of fabric suggests quiet or cozy activities. More active play calls for a space that has more color, is harder and brighter, and is more open.

Environmental landmarks. Physical cues about location, boundaries, and shapes are environmental landmarks. Very young children remember the location of things. Infants and toddlers learn to use the main landmarks, such as walls, doors, large pieces of furniture,

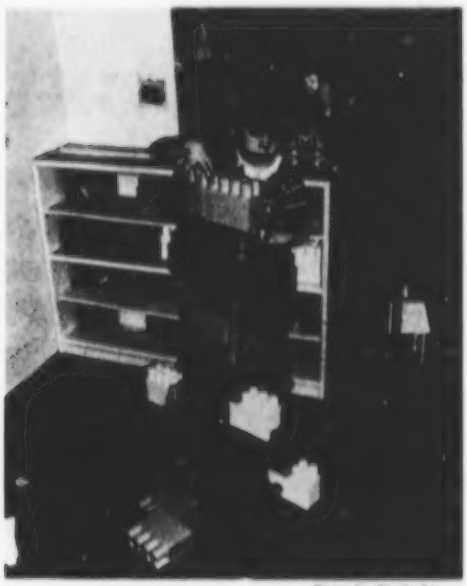

Photo by Sheila Signer

room light, and varied floor textures, to find their way about. They figure out how to get from one place to the next by using environmental landmarks, including your voice.

Children who lie down, sit, walk, and run live at different levels. What children see when they are lying on the floor can be very different from their viewpoint when they are standing or running. That likelihood makes the space of their world complex. A child looking for a ball has to remember two things: where he or she saw it last and from what point of view he or she saw it.

A clear layout helps children navigate and make sense of the environment.

Harmony. Harmony occurs when the colors, light, textures, and furnishings work well together. Harmony is important to infants and toddlers because they are trying to make sense of the world. A harmonious setting is not cluttered or chaotic. It gives young children a chance to focus.

A harmonious environment can take a lot of toy dumping and messy play without breaking down. A well-organized, pleasant, and ordered setting can be in harmony with the play of young children.

Harmony is enhanced by simplicity—neutral or pastel colors for walls (one color), surfaces, and background materials. With so much going on in the environment, a plain background is soothing. The children and materials provide the color and form. For example, plain wooden shelves are ideal for showing off the bright toys and materials stored on them.

Mastery opportunities. Environments should encourage and provide opportunities for infants and toddlers to show their competence. A variety of developmentally challenging pieces of equipment gives each child the chance to be good at something and gives children at various skill levels different levels of challenge.

You encourage mastery when you offer a variety of activities and activity areas. Easy access to activities and materials in specially planned areas plus child-sized equipment that offers safe challenges encourage children to master many skills.

Mini-environments. A small space within a larger one is a mini-environment. Mini-environments are used for special purposes: privacy, a quiet place to rest, a place to play with one or two others, a place for you and a child to relax together, or a place only for adults. Some mini-environments are set up for particular activities, such as water or messy play, large-motor movement, naps, or sand play.

Mini-environments are often spaces scaled to infants' and toddlers' needs. Small defined areas add flexibility and variety to a larger space. A large room with mini-environments reduces crowding.

Set up mini-environments using boundaries. Create the emotional tone of

each mini-environment with such decorative elements as floor coverings, furniture, colors, and plants.

Neighboring mini-environments should complement each other. Put a quiet resting place far from a climbing/running area. Use the basic organizing principle of like with like to set up different mini-environments.

Illustration by Paul Lee

Multilevel environments. A space that has surfaces for the children above and possibly below the floor is a multilevel environment. The values of multilevel environments include the following:

1. Young children can get an adult-level viewpoint.
2. Multiple levels offer climbing challenges.
3. The play space increases.
4. The variety creates a special experience for children.

Multilevel environments include fenced lofts, climbing ramps, room dividers that work as sitting surfaces, climbing structures with platforms, pits filled with foam or small pillows, slides from another level to the floor, and floors with dips and hills built in.

Nature and natural experiences. Breezes, sunlight, grass, sand, the smell of trees, light on water—these are all parts of nature and natural experiences. Humans thrive on natural experiences; they soothe and refresh people. Natural patterns and variations provide gentle changes in stimulation, encouraging a relaxed alertness and inspiring feelings of comfort.

Some experts believe the stress of modern life comes partly from too little contact with the natural world. Even young children experience stress. Experiences with nature can add to children's well-being and reduce stress.

Natural experiences can include activities as simple as sifting sand, playing in water, and watching fish in an aquarium. The child care environment can provide natural experiences in an outdoor area that has grass, trees, and rocks.

You can also offer natural experiences indoors with plants, animals, fish, and natural objects, such as large, smooth rocks, shells, dried plants, and animal bones. Windows that let in natural light are another way to bring nature inside.

Order. A setting in which everything has its place has order. Both you and the children need to know where each item goes when it is not in use. You can also maintain order by keeping materials in their own activity areas. You encourage order when you plan a place for children to dump and sort—two favorite toddler activities.

When you have order, young children can see playthings clearly and tell them apart, which lets the children choose one thing over another. Children can also understand how order works by helping to put things back in order. Children who have a hard time focusing their attention especially need an orderly environment. Order offers clear signals about materials and areas.

Disorder creates problems. Children and caregivers cannot find things. A cluttered environment can overstimulate young children. In a disorderly setting, caregivers spend too much energy cleaning up and looking for things.

A play or activity area that is quickly tidied up has easily restorable order. Well-organized shelves, storage, and equipment make for order that is easy to recapture after a play period.

Equipment and materials that can go on shelves with space on either side enable toddlers to help clean up. When young children can help put things away, you have restorable order that also teaches valuable lessons.

To summarize:

1. Open shelves aid restorable order.
2. A limited number of carefully chosen toys and materials creates restorable order.
3. Separating activities and the equipment used for the activity supports easily restorable order.

Perhaps the best thing about easily restorable order is how relaxed everyone feels about making a mess. Feeling all right about playing and exploring—and making a mess doing so—encourages healthy growth and development. When you know a place is easy to put in order, you will seldom have to say no.

Organization. Environmental organization is a system of arrangement. The arrangement can be of anything: space, materials, books, or toys. A system of arrangement creates guidelines that show where things go and why. For example, environmental organization would mean putting the wheeled riding toys in the large-motor area. Hand toys would go on a shelf in a play area. Soft, cuddly toys might go in the rest or quiet areas. The best organization is simple and orderly: items used together are arranged together—water toys near the water troughs, and art materials near the art workspace.

Infants and toddlers are trying to make sense of the world, and organization makes the job easier for them. The children learn to expect certain things in certain places.

Organization also makes caregiving easier. When the setting is well organized, children can find things for them-

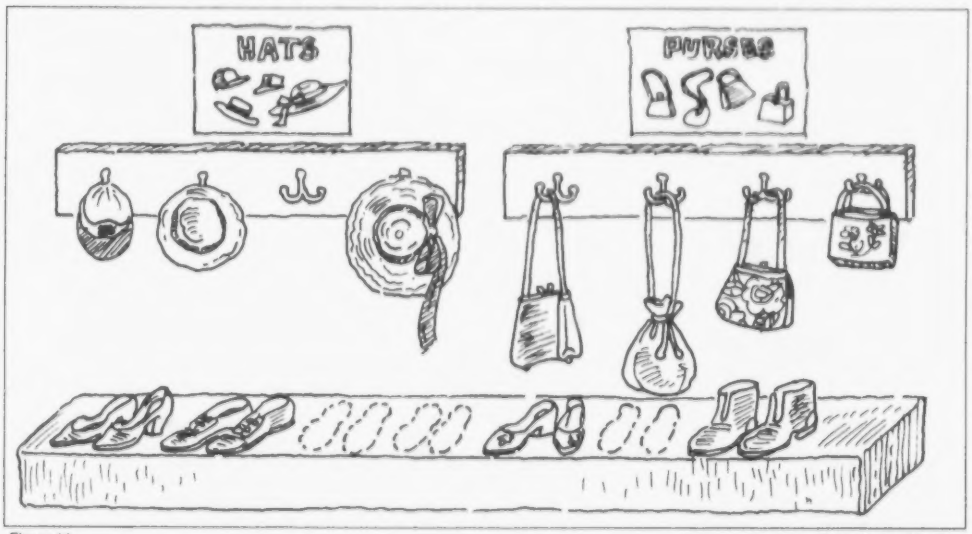

Figure 11 Illustration by Paul Lee

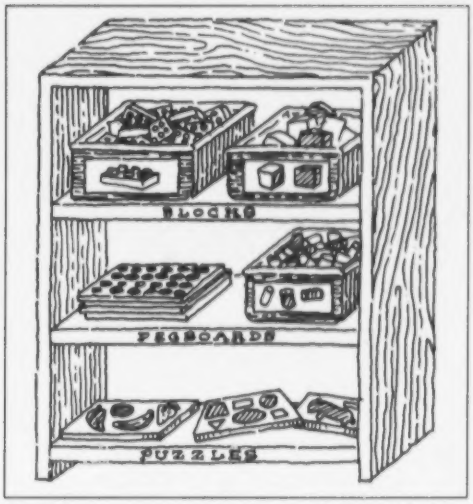

Figure 12 Illustration by Paul Lee

selves and help put them away. You can tell the toddlers: "The crayons are in the art center." "The block goes next to its picture here."

Pathways. A good way to ensure easy movement, or pathways, between different rooms is to draw a plan. Use a simple scale, for example, 1 foot in the room equals 1/2-inch or 1/4-inch on the paper. Measure the room, draw it, and add the doors, windows, and large pieces of furniture and equipment to give yourself a clear view of the pathways. If you cannot see any, rearrange the room, facilitating movement within the room and to other rooms or areas. Look for things that are in the way and move them. Paying attention to traffic flow is a good way to make life in the environment easier.

When a child can either climb a ramp to a platform or go up stairs, you have alternative pathways—two ways to get to the same place. Alternative pathways offer choices, reduce crowding, and help make the space more workable.

Peacefulness. An atmosphere of peacefulness in the environment keeps noisy activities and crying or shouting from disturbing the whole center and minimizes conflict. To create a peaceful environment, do the following:

- Divide the space.
- Use acoustical ceiling tile.
- Consider having ceiling fans.
- Install carpeting.
- Use soft, natural colors.
- Provide soft furnishings.
- Include comfortable furnishings for caregivers and children.
- Limit the size of the group.
- Separate loud activities from quiet ones.
- Have a number of interesting materials available at the same time.

Perspective of the infant. An infant's viewpoint and what he or she sees from that position make up the perspective of the infant. An infant on his or her belly has a very different perspective from an adult standing next to that infant. The adult can see a long way in all directions. The infant can see only a small part of what the adult sees. The infant lying on his or her back sees the ceiling and the undersides of chairs.

Think about designing the space from the infant's perspective. Try to imagine

Photo by Sheila Signer

things from the infant's point of view. To do this, get down on the floor, and see what the young child sees. While on the floor, also try to feel what the child feels and hear what the child hears.

Privacy. The ability to find spaces to be alone and comfortable is essential for privacy. Young children in group care many hours a day need access to privacy. Private spaces allow children to be alone for rest or quiet or to deal with some of their feelings whenever they need to.

Reevaluation of the environment. Reevaluation means looking at what happens after a plan is put into practice. Reevaluation is important for child care environments because plans do not always work out as intended. The rest area may be too noisy. The quiet corner for cuddling may not be used. The realities of the layout can bring out problems.

Monitoring is an excellent tool for reevaluation. To monitor means simply to watch what happens. Watch the children in one area or during a particular time, or follow one baby or one caregiver for half an hour. Pay attention to the pathways: Are they clear? Does everything seem conveniently arranged? Do you see a lot of frustration?

Another technique is to keep track of how often certain activities take place or how much one piece of equipment gets used.

Reevaluation or ongoing evaluation means that you pull back from hands-on work to look at the whole program from a fresh viewpoint. Reevaluation creates room for improvement and allows your program to grow and adapt to new ideas or resources

Illustration by Paul Lee from Louis Torelli's design

Scale. When an environment and its furnishings match the size of the people in the room, everything is to scale. You need to install child-sized furnishings and equipment if the environment is to be scaled for children. The walls and basic fixed elements of the child care setting are likely to be adult in scale: high ceilings, large spaces, high sinks and toilets. That means the furniture, shelves, and equipment need to be scaled to a child's size.

Appropriately scaled equipment encourages choices and aids growth and development because infants and toddlers can reach materials easily. When the room is scaled to the children, they can move about freely and carry out activities independently.

Designing the environment to scale for infants and toddlers requires knowing the children's focus. The activity zone for infants and toddlers is from the floor to 30 inches off the surface. Anything higher is beyond hands-on contact. Within the activity zone, sinks, shelves, tables, lofts, steps, toilets, water tables, and platforms should all be scaled to the children's height.

Sensory impact. Everything you see, hear, touch, or smell in an environment contributes to its sensory impact. A child care setting for young children has to have

a balanced sensory impact. Too much to see, hear, and touch is overstimulating. But too little sensory experience leaves children with nothing to respond to. The children get irritable and bored and may turn to each other for stimulation, which may lead to problems and fighting.

Things that change shape, grow, or move about add to the sensory impact of the environment. These objects include mirrors, plants, animals, mobiles, banners, and wind chimes.

Photo by Sheila Signer

Storage. In a child care setting there are many types of storage. Storage can refer to shelves for toys waiting to be picked up or for toys stored over the winter season. Storage can hold items used in changing diapers many times a day or cleaning supplies used once a day.

Program flexibility is affected by the types of storage available. The more storage and the more types of storage you have, the more flexibility your program will provide. Plenty of storage is essential to a good child care environment.

The best storage for the children's favorite toys is on open shelves with space around each toy. That is much better than a huge box or bin with everything piled into it. Children can choose their toys when they see what each one looks like.

To do its job, storage must be convenient. If it is not, you have not stored something, you have buried it.

Variety. An environment that offers plenty of choices has variety. Variety means choices about what to look at, what to hear, what or whom to play with, and what to do. The home is an ideal example of variety because it offers so many settings, textures, arrangements, and materials.

A major example of variety is how the space is divided. When certain areas are set up for particular activities, the environment offers variety. When the environment meets the changing needs of both infants and toddlers, it has variety.

Another example of variety is texture. A child care setting can offer a rich variety of textures: the smooth floor, the rough rug, the porcelain sink, the wood tabletop, the nubby fabric on the couch, or the soft velvet pillow on the floor.

You can offer variety for the senses by pulling the shades or using a dimmer to change the lighting, putting up new materials and pictures, playing different kinds of music or tapes, bringing in a large new plant, changing the toys, or offering a new art activity.

This publication is a component of The Program for Infant/Toddler Caregivers, a comprehensive training system for caregivers of infants and toddlers. Other available materials developed for this program include the following:

ISBN	Title (Date of publication)	Price
0-8011-0751-2	First Moves: Welcoming a Child to a New Caregiving Setting (videocassette and guide) (1988)*	$65.00
0-8011-0839-x	Flexible, Fearful, or Feisty: The Different Temperaments of Infants and Toddlers (videocassette and guide) (1990)*	65.00
0-8011-0809-8	Getting in Tune: Creating Nurturing Relationships with Infants and Toddlers (videocassette and guide) (1990)*	65.00
0-8011-0767-9	Infant and Toddler Program Quality Review Instrument (1988)	2.00
0-8011-0878-0	Infant/Toddler Caregiving: A Guide to Creating Partnerships with Parents (1990)	8.25
0-8011-0880-2	Infant/Toddler Caregiving: A Guide to Language Development and Communication (1990)	8.25
0-8011-0877-2	Infant/Toddler Caregiving: A Guide to Routines (1990)	8.25
0-8011-0879-9	Infant/Toddler Caregiving: A Guide to Setting Up Environments (1990)	8.25
0-8011-0876-4	Infant/Toddler Caregiving: A Guide to Social-Emotional Growth and Socialization (1990)	8.25
0-8011-0750-4	Infant/Toddler Caregiving: An Annotated Guide to Media Training Materials (1989)	8.75
0-8011-0869-1	It's Not Just Routine: Feeding, Diapering, and Napping Infants and Toddlers (videocassette and guide) (1990)*	65.00
0-8011-0753-9	Respectfully Yours: Magda Gerber's Approach to Professional Infant/Toddler Care (videocassette and guide) (1988)*	65.00
0-8011-0752-0	Space to Grow: Creating a Child Care Environment for Infants and Toddlers (videocassette and guide) (1988)*	65.00
0-8011-0758-x	Visions for Infant/Toddler Care: Guidelines for Professional Caregiving (1988)	5.50

There are almost 700 publications that are available from the California Department of Education. Some of the other more recent publications or those most widely used are the following:

ISBN	Title (Date of publication)	Price
0-8011-0853-5	California Public School Directory (1990)	$14.00
0-8011-0760-1	Celebrating the National Reading Initiative (1989)	6.75
0-8011-0867-5	The Changing Language Arts Curriculum: A Booklet for Parents (1990)†	10 for 5.00
0-8011-0777-6	The Changing Mathematics Curriculum: A Booklet for Parents (1989)†	10 for 5.00
0-8011-0856-x	English as a Second Language Handbook for Adult Education Instructors (1990)	4.50
0-8011-0041-0	English–Language Arts Framework for California Public Schools (1987)	3.00
0-8011-0731-8	English–Language Arts Model Curriculum Guide, K—8 (1988)	3.00
0-8011-0804-7	Foreign Language Framework for California Public Schools (1989)	5.50
0-8011-0735-0	Here They Come: Ready or Not—Appendixes to the Full Report of the School Readiness Task Force (1988)	22.50
0-8011-0737-7	Here They Come: Ready or Not—Report of the School Readiness Task Force (Summary) (1988)	2.00
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